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A Weekly Newspaper Devoted to the Industrial, Financial, Railroad,
Mining, Contracting, Engineering, Building, and General
Business Interests of the South and Southwest

Vol. 67
No. 10

ESTABLISHED 1882

\$4.00 Per Year
Single Copy 15 Cents

For Development of Chemical Industries
in this Country.

Steering the Railroads Between Scylla and
Charybdis.

American Petroleum in International
Commerce.

Rural Credits in National Finance.

"Build Now" in Advertising.

BALTIMORE, MARCH 11, 1915

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CLEAN



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"NEVER SHORT OF CARS"

MINED BY
Clinchfield Coal Corporation
DANTE, VA.

SOLD BY
Clinchfield Fuel Company
SPARTANBURG, S. C.

"Mt. Savage" Fire Brick

BRANDS:
"MT. SAVAGE" "REFRACTO"
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Capacity 30,000,000 Per Year

Union Mining Co.

OFFICE AND WORKS:
MT. SAVAGE MD.



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High Grade Firebrick
and Fireclay Products.
MEXICO BRICK & FIRE CLAY CO., MEXICO, MO.

Killian Fire Proofing & Brick Works

KILLIAN, S. C.

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FIRE BRICK

Foster Superheaters

APPLIED TO BOILERS OF ANY TYPE, OLD OR NEW

Uniform Superheat Guaranteed

POWER SPECIALTY COMPANY

111 Broadway, New York

BRICK MACHINERY

Specially designed for working
Southern Clays. Six sizes of ma-
chines. Six to one hundred and fifty
thousand bricks per day. Hundreds
in daily use. Over twenty-five years'
experience.

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THE BAILEY-LEBBY CO.

CHARLESTON, S. C.

AGENTS FOR

REVERE RUBBER CO.

GIANT Seamless and Stitched
RUBBER BELT

FOUR ACE Friction Surface
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REVERE SPIRAL and RING
PACKING

We Carry a Complete Line of
REVERE GOODS

Agents for DISSTON SAWS AND KNIVES, COLUMBIAN ROPE, EUREKA LATH YARN



BRICK MACHINERY

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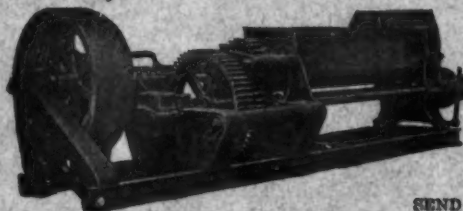
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THE FERNHOLTZ BRICK MACHINERY CO.

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Brick, Tile and Fire-Proofing Machinery



Large range of sizes and
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smallest up to 150,000 bricks
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Automatic and Hand Cutters
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Pug Mills, Disintegrators,
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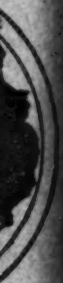
E. M. FREESE & COMPANY,

180 South Street, Galion, Ohio

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the line of
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Fenestra

SOLID STEEL WINDOWS

"REG. U.S. PAT. OFF."

"Detroit Steel Products Co.

Gentlemen:

After occupying our new fireproof building six months, we realize more than ever the value of the Fenestra Steel Window Sash.

We are able to produce better work, and to increase our output at less expense than under our former condition.

The light obtained by use of your Fenestra Window Sash is a revelation to visitors.

Yours truly,
Hennegan & Co., Cincinnati, Ohio"

"BETTER WORK," "increased production at less expense"—that is what the wealth of daylight and fresh air admitted to the workrooms in a building equipped with Fenestra Solid Steel Sash gives to the manufacturer.

Above is one of the many enthusiastic letters received from owners of Fenestrated buildings.

Below is a picture of the Hennegan Printing Plant. Judge for yourself how light and airy the workrooms in such a building must be.



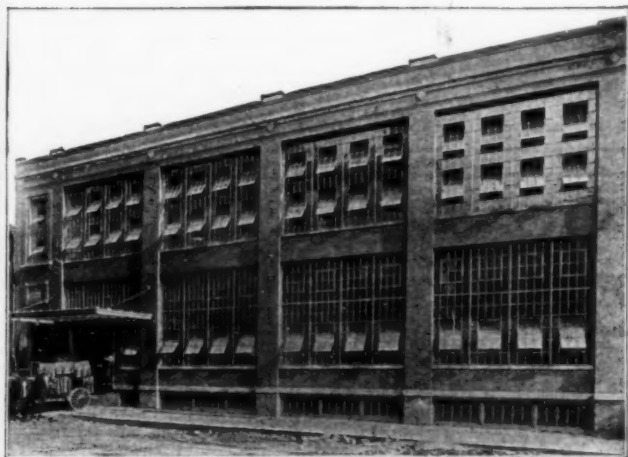
Vertically Pivoted Sash. May be swung at 180 degrees or set at any angle to deflect air currents into building.

Fenestra Solid Steel Sash is suitable for use in any type of building. Let us send you full particulars concerning the various styles of Fenestra "walls of daylight," our price list, and a list of firms testifying to the advantages of Fenestra.

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Dept. 38 Detroit, Mich.



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We have never yet succeeded in making a perfect product. But we are ready to do the "next best" thing, viz., to replace without question those defective lengths of wire or cable which sometimes—in spite of all our precautions—get away from our factory. A while back, the signal engineer of a great eastern railway system said to us, "We've got a thousand feet of your wire over at—that is out of center". "Send it back and we'll send you another length," was our reply. But the signal engineer decided that the error was not sufficiently serious to justify replacement. This is our attitude always. We aim to make our wire and cable as good as wire and cable can be made—in which desire we are not troubled by competition. And when, through some accident, we fail to come up to our own standards, we are just as anxious as our customers to make good the shortcoming. It's all in the interest of **SAFETY**—which must always stand for safety.



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because every detail of these engines is built with an eye to service.

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Engines built in several types to meet a variety of requirements.

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Boilers of All Styles and Sizes
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Steam and Gasoline Engines, Boilers, Ginning Machinery, Saw Mills and Woodworking Machinery. Gibbs Edgers, Gibbs Shingle Machines, Swing Saws, etc. Corn Mills, Brickmaking Machinery and Machinery Generally. Electric Light Plants for Municipalities, Hotels, Farms, Homes, etc. Storage Batteries.
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Manufacturers of
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Elevating, Conveying and Power-Transmitting Machinery

For Cotton Seed Oil Mills, Compresses and Gins, Canning and Packing Plants, Clay Working, Sand and Gravel Plants, Phosphate and Fertilizer Plants.

Concrete and Cement Plants, Ice and Cold Storage Plants, Breweries and Distilleries, Grain Elevators and Manufacturing Industries generally.

Labor saving devices for mechanically handling raw or finished material in packages or bulk.



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JACKSON, TENNESSEE

INCORPORATED 1884

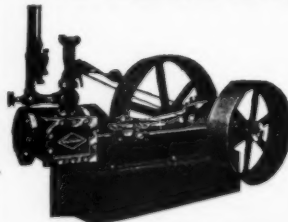
Manufacturers of Corliss, Automatic, Throttling, Hoisting and Dredging Engines

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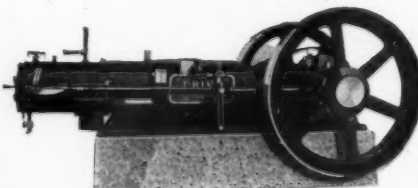
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RUNS on any fuel that any internal engine will run on successfully and on fuel that most manufacturers say is impossible.

No valves, gears, side shafts, hot bulbs, hot heads, or electrical sparkers for trouble makers, and starts on the fuel on which it runs. Has been on the market for more than eight years and is not in the experimental stage. The height of simplicity and effective for any purpose. One customer writes: "She runs so nice we haven't the heart to stop her."

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A "Hyrap-Exide" Electric Lighting Plant

installed in one corner of a tool house on a farm, is shown in the accompanying illustration. This farmer, like many others, has a gas engine which he uses to run a counter shaft with which he operates a feed grinder, grind stone, etc. On this shaft is also belted the generator of a "Hyrap-Exide" Electric Lighting Plant Unit, and while he is grinding feed or doing other work with his engine, he also charges the storage battery of the Unit.

When the engine is not running, the battery furnishes current for electric lights, thus giving a full 24 hour electric service by only an occasional operation of the engine.

"Hyrap-Exide" Units make it easy for anyone not within reach of a Central Station to have his own electric plant. These plants are easy to install, easy to operate, perfectly safe and inexpensive.

Write our nearest office for our new book on electric lighting plants.

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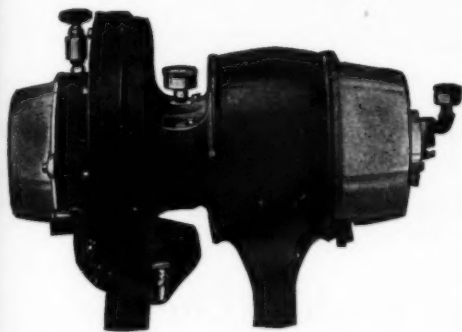
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1915

New York
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A PORTABLE ELECTRIC LIGHT PLANT

Weights 290 pounds. Floor Space 18x28". Generates 1 K. W.



Steam turbine direct connected to generator.

Operates 35 16 c. p. tungsten incandescent lamps.

Requires 75 pounds steam pressure.

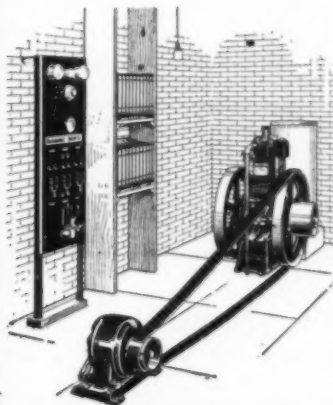
This is an ideal outfit for isolated places, such as oil wells, lumber camps, etc. Blue prints and instructions supplied.

We also make a 1/2 K. W. size.

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Convenient Electric Light Is at Your Command



You can have Electric Light, no matter how far you are from the city, if you install a Fairbanks-Morse Electric Light Plant.

24-Hour Service

Not necessary to start engine to get light, because storage batteries supply current at night or in daytime when engine is not running. While it runs it runs at full load, thereby giving most power for the least fuel consumption.

Fairbanks, Morse & Co.

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(938-3W)

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The most progressive power plants in all parts of the world contain Westinghouse equipment.

One of eight units in the plant of the Osaka Electric Light Co., Osaka, Japan.

The Westinghouse Machine Co.
Prime Movers & Auxiliaries
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Feeder Cable Bare and Insulated
Transmission Cable

Aluminum-Steel Reinforced

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EXCEPTIONALLY LONG SPANS

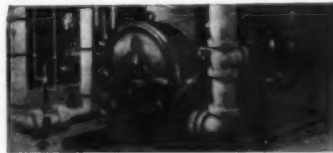
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Turbine Boiler Feed Pump.

"It Pays to Advertise"

but one of the best advertisements is a satisfied customer. It is interesting to note that every purchaser of

THE TERRY TURBINE

is a Terry booster, and invariably where another engine is needed it means a repeat for a Terry.

Because they give good service—run continuously with little attention—are economical and efficient.

Catalog 143 on request.

The Terry Steam Turbine Company
Hartford, Connecticut

T258

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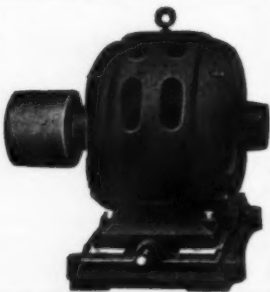
is safe, sure and economical. It means better work and more of it.

TRIUMPH QUALITY

stands for the best in Electrical Equipment. Investigate before buying.

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THE TRIUMPH ELECTRIC CO.
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**HEADQUARTERS**

FOR ALL THINGS ELECTRICAL
At a Little Less Than You Pay Elsewhere.

Prompt Service.

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"EVERYTHING FOR A GAS PLANT"

Gas Holders, coal gas or water gas apparatus, valves, tanks, and all auxiliary equipment.

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RESIDENCE
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Electrical Equipment, Wiring Supplies, Fixtures
Advise us of your requirements. Our prices interest.

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THE WALSH & WEIDNER BOILER CO.

MANUFACTURERS OF HIGH-GRADE
BOILERS
CHATTANOOGA, TENN.
Write us for Prices before placing your order

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this Alberger
Bulletin No. 19-R.
It is replete with
exact data upon
the subject.

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Pumps, Heaters, Injectors, Engine Supplies, and Repairs for Mills, Hotels, Public Works. Try

LOMBARD IRON WORKS - AUGUSTA, GA.

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Water Tube
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Special Plate and Tank Work. Offices—No. 443 Boliver Street, New Orleans, La.; Praetorian Bldg., Dallas, Texas. Main Offices and Works—Chattanooga, Tenn.

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BUILDERS OF
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Stand Pipes, Self-Supporting Stacks, Tanks, Towers, all kinds of Structural and Plate Iron Work, Boiler Fronts, Grate Bars, all kinds of Castings.

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Chief Advantages of the**VOGT WATER TUBE BOILER**

No flat stayed surfaces; no curved tubes; no multitude of hand hold plates; accessibility for cleaning and inspection; rapid circulation, both of water inside of tubes, as well as of the hot gases outside of tubes; complete combustion; dry steam; steadiness of Water Level; flexibility of construction; wrought steel construction throughout; safety, efficiency, durability.

Meets the demand for strictly safe, durable and efficient steam producer.

We want to answer your questions and also send our illustrated Catalogue.

Henry Vogt Machine Company

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1915

COATESVILLE High Duty Steam Boilers

in every style and for all purposes. Each and every one well proportioned for best economy of fuel, strength and durability. Full details in our catalog.

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BABCOCK & WILCOX—STIRLING—RUST

WATER TUBE STEAM BOILERS

STEAM SUPERHEATERS

MECHANICAL STOKERS

WORKS—BAYONNE, N. J.

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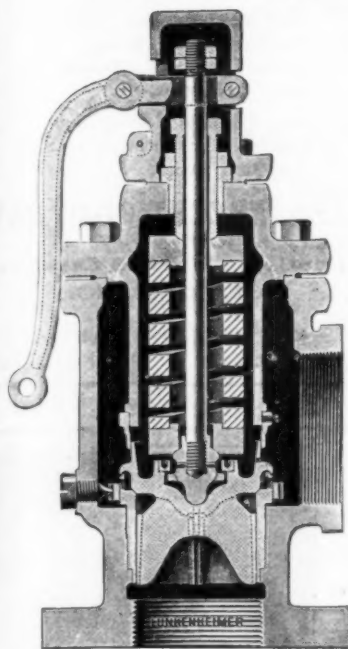
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more than the excess pressure on a boiler is wasteful and expensive.

LUNKENHEIMER POP SAFETY VALVES

will promptly relieve the overpressure only, and no more.

The improved construction permits of very close regulation, and the amount of "pop" and the pressure setting can be adjusted from the outside without taking the valve apart. They will not stick, chatter or hammer; are positive in action and will give long and satisfactory service.

Lunkenheimer Pop Safety Valves are made in **Bronze** and **Iron Body Bronze Mounted**, with spring incased or exposed, in all standard sizes.

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"QUALITY"
Largest Manufacturers of High Grade
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IF YOU WANT TO REDUCE YOUR COAL COSTS

Find out all of the advantages and economies of the Huber Hand Stoker. Write today for complete data.

HUBER GRATE BAR & STOKING CO. 1114-16 E. Monument Street
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THE OTIS HEATER SHIPPED ON ITS MERITS

Guaranteed to heat your feed water to 200 degrees or more with the proper quantity of exhaust steam. Its brass tubes are all suspended from the top, enabling them to expand and contract with perfect freedom. We guarantee that the tubes will not become loose (as they do in some other types). All heaters are tested at 200 lbs. hydrostatic pressure before shipment.

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BOILER WASHER and FIRE EXTINGUISHER

Can be attached to Locomotive.

SELF-ACTING INJECTOR The only injector for Lumber
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GALENA-SIGNAL OIL CO.

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Leading Railway Lubricating and Illuminating Oils of America

GALENA COACH, ENGINE and CAR OILS, and SIBLEY'S
PERFECTION VALVE and SIGNAL OILS
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ELECTRIC RAILWAY LUBRICATION A SPECIALTY

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Expert Service

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PETROLEUM

HIGH GRADE

Engine Gasoline
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Painters' Naphtha
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OUR KEROSENE AND GASOLINE

IS MANUFACTURED FROM
HIGH GRADE OKLAHOMA CRUDE OIL

LUBRICATING OILS

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HIGH VISCOSITY LOW COLD TEST

We make a Specialty of Heavy Oils
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Oiling Roads

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Why they all want the BADGER Expansion Joint



"Give me the expansion joint that won't take all my time for packing—one that won't give out just when everything goes wrong." —Engineer.

"What I want is an expansion joint that takes care of pipe changes at least cost." —Manager.

"The expansion joint for me sells readily because not too high priced, and has no 'come-backs' from customers." —Supply Man or Machinery Agent.

"What I want is an expansion joint that I can specify with absolute confidence in its capacity for taking up pipe changes, long life, and one that doesn't take up all the room in the power house." —Consulting Engineer.

E. B. Badger & Sons Co., 74 Pitts St., BOSTON,
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50-44



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QUALITY—SERVICE

QUALITY first—You want the best. The importance of the work demands it. YORK Valves and Fittings have stood the test of time. Made of best materials—carefully inspected—subjected to an air test under water—guaranteed to give satisfaction under all usual working pressures.

SERVICE comes next—Users of Ammonia Valves and Fittings have a right to expect prompt service at all times. This we aim to give by carrying a complete line of Valves and Fittings at convenient points throughout the country—supplemented by a large stock in all lines at the Factory.

You can have both Quality and Service by adopting the YORK Line.

Try us. If in a hurry, order from our nearest Branch Office.

YORK MANUFACTURING CO.

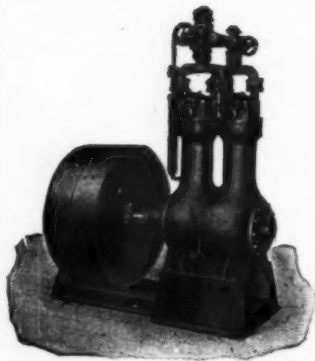
(Ice-Making and Refrigerating Machinery exclusively.)

YORK, PA.

SOUTHERN BRANCHES

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BRECHT ICE MACHINES ^{1/2 to 20} TONS



For Hotels, Markets, Hospitals, Creameries, Ice-Cream Factories, Florists, Public Institutions, Residences, etc.

Also Portable Cooling Rooms, Special Refrigerating Boxes and Cold Store Doors.

THE BRECHT COMPANY

ESTABLISHED 1883

Dept. K 1228 Cass Ave.
ST. LOUIS, MO.

NEW YORK: 176 Pearl Street
HAMBURG BUENOS AIRES

Water Softeners and Filters

We build Filters and Softeners for any purpose and of any capacity.

"A Laborer can operate them"

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American Water Softener Co.
1019 Chestnut Street PHILADELPHIA



Gravity and Pressure Filters

THE NEW YORK CONTINENTAL JEWELL FILTRATION CO.

111 Monroe St., CHICAGO

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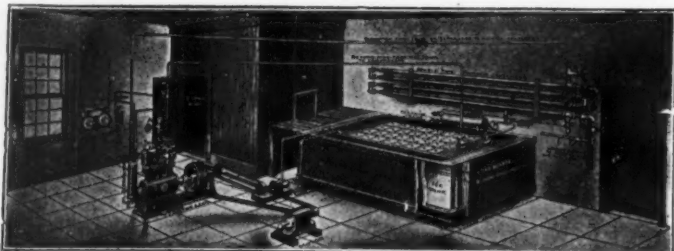
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FILTERS CHICAGO SOFTENERS

CRYSTAL ICE from RAW WATER



Ice-Making Plants from one to eight tons capacity.

Portable Ice Plants, 300 pounds to 1000 pounds capacity.

Drinking Water Plants for Mills and Offices

Refrigerating Plants for Cold Storage and all purposes.

Small Ice-Making and Refrigerating Plants Our Specialty.

Over 20 Years Experience

REMINGTON MACHINE COMPANY, Wilmington, Del.



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The business we are particularly proud of is our repeat orders—orders for additional equipment from old customers who are already operating one or more "H. & C. Safety" Compressors.

Our "come-back" business is a big business in itself and positively proves we have given a big value.

Write for an estimate on your requirements.

THE HUETTEMAN & CRAMER CO.

Refrigerating and Ice Making Machines,

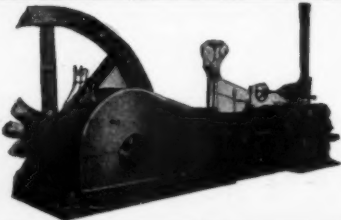
Detroit, Michigan

THE VILTER MFG. CO.

832 Clinton Street
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Corliss Engines

Ice and Refrigerating
Machinery



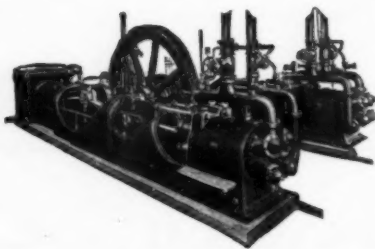
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HAVE BEEN ON THE MARKET FOR 25 YEARS.
MORE OF THEM ARE IN USE THAN ALL OTHER MAKES.
MORE OF THEM ARE USED EACH YEAR.

When YOU buy FOLLOW THE SOUND JUDGMENT OF EXPERIENCE.

CATALOG ON REQUEST

Saginaw, Mich. THE LUFKIN RULE CO. New York



The FRICK

Refrigerating Machine
is built for Endurance
and Efficiency.

It has endured all
overloads, lack of atten-
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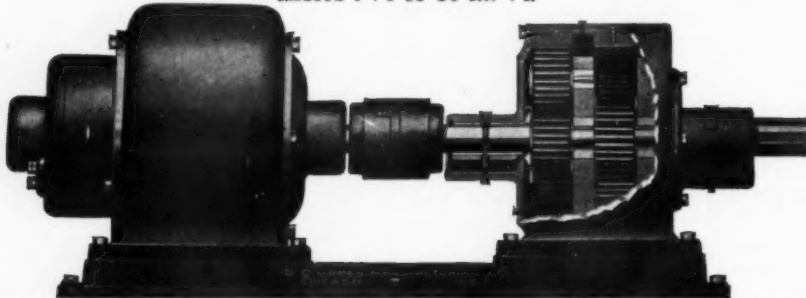


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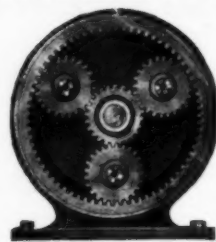


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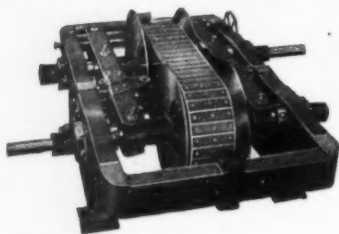
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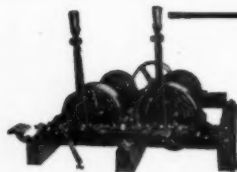
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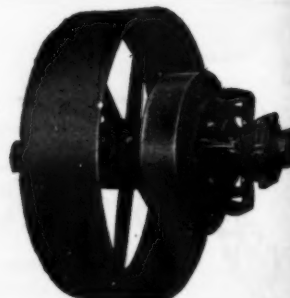


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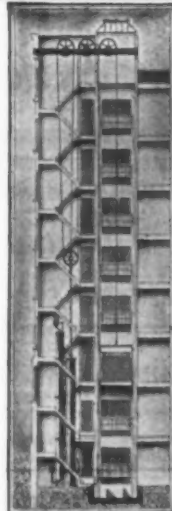


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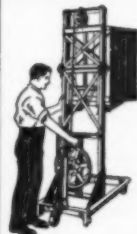
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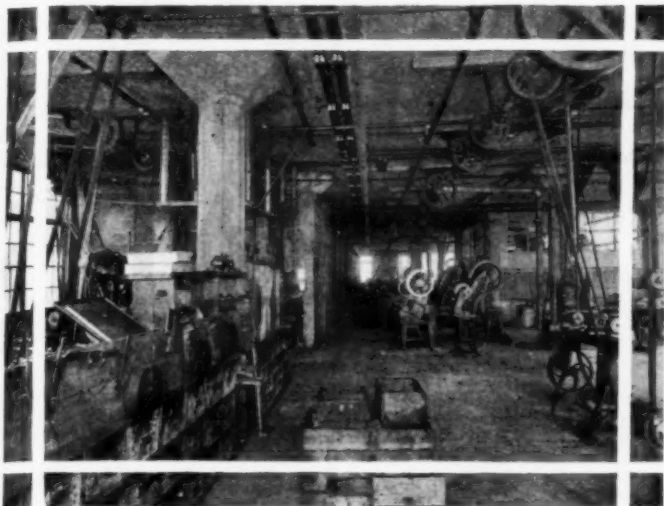
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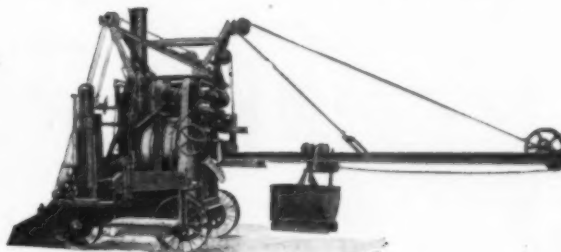
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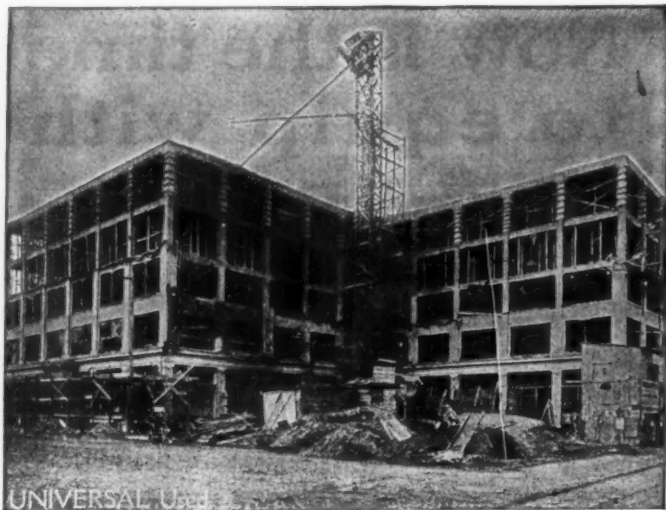
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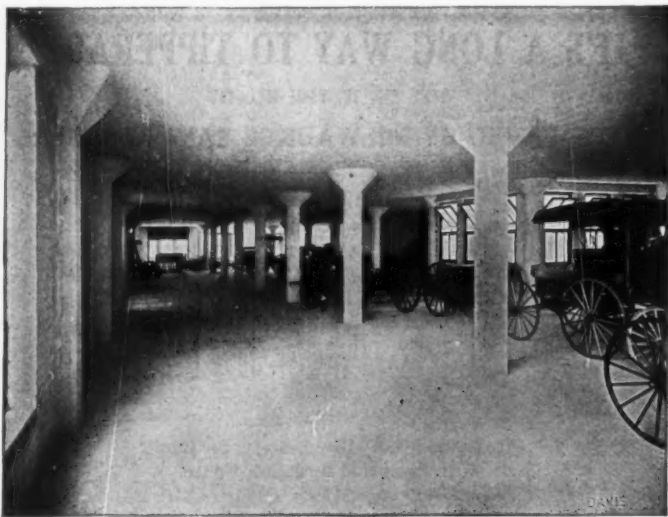


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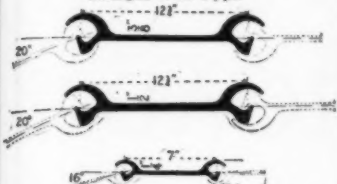
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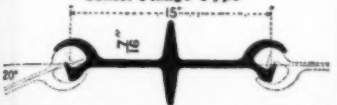
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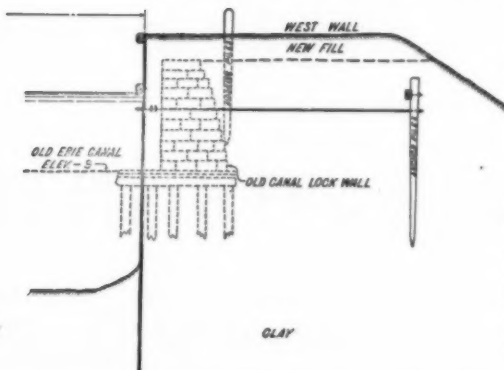
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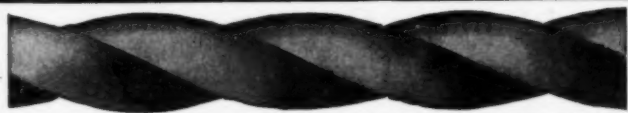
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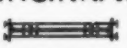
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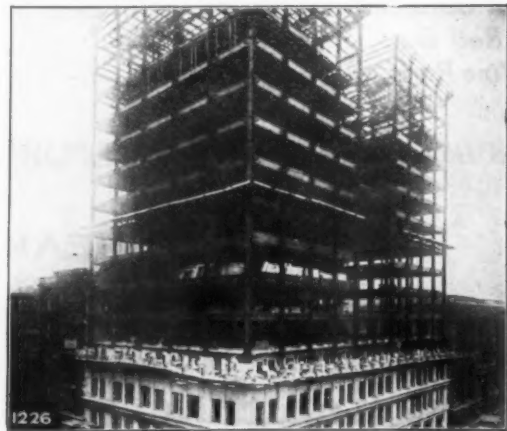
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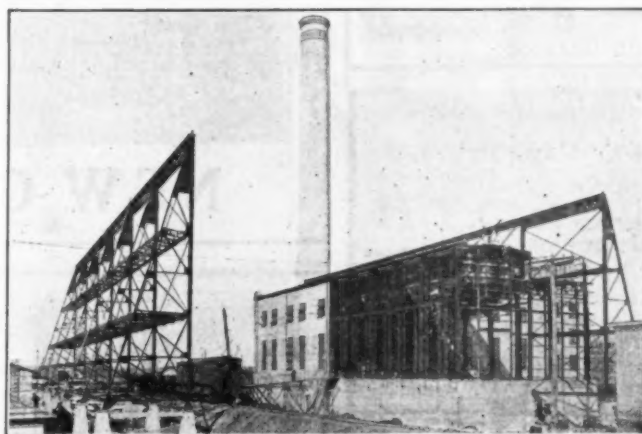
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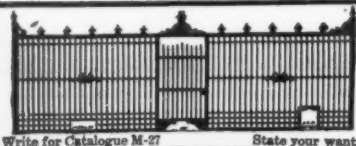


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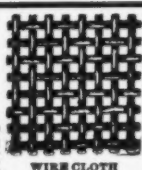
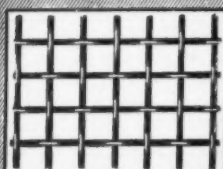
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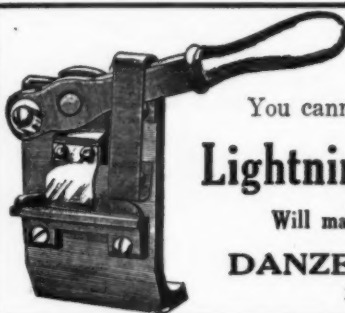


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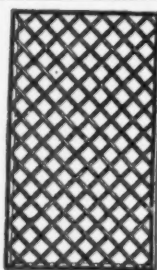
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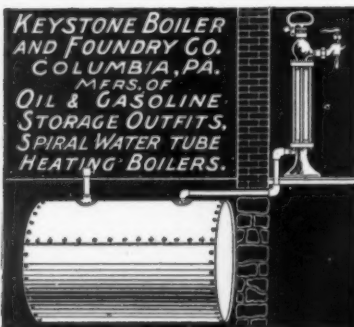
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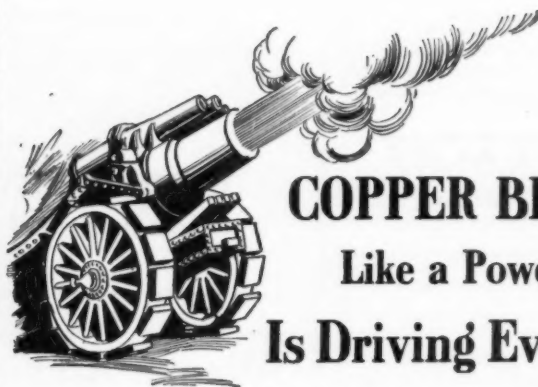
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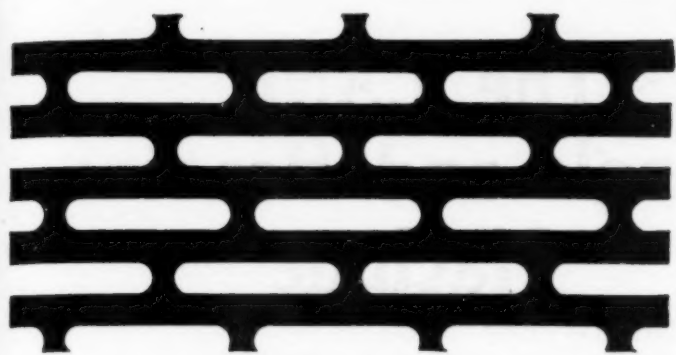
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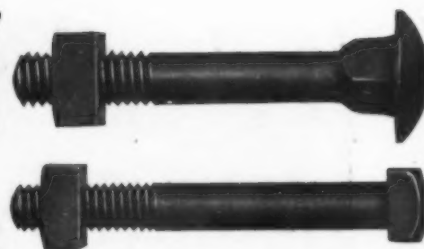
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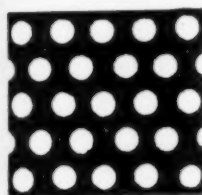
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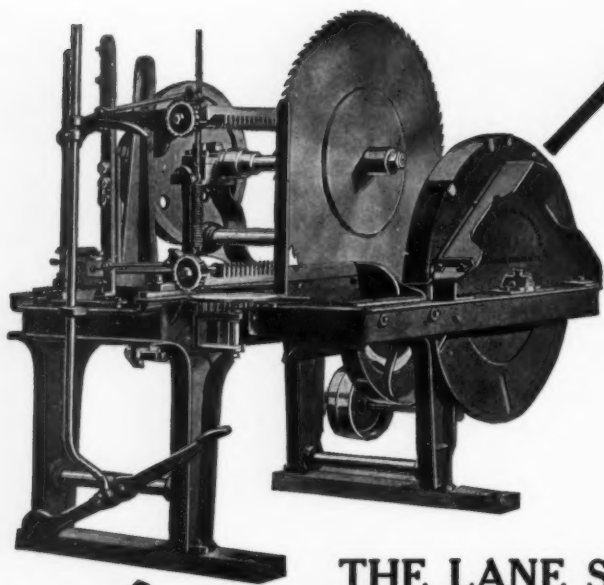
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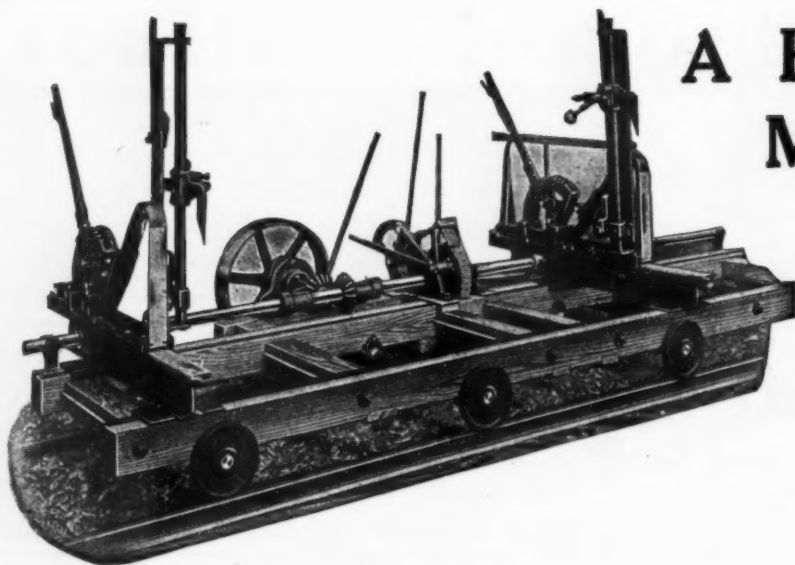
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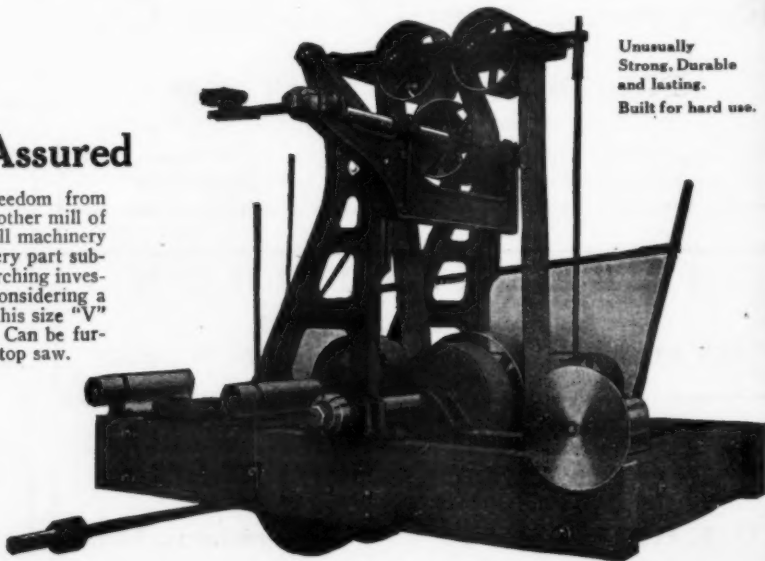
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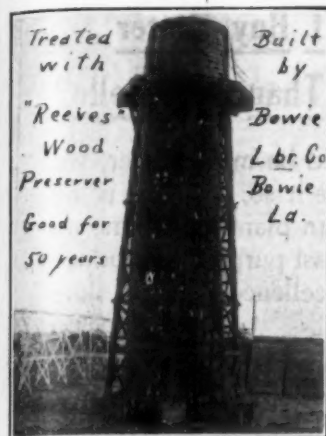
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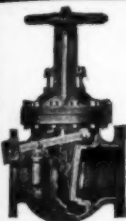
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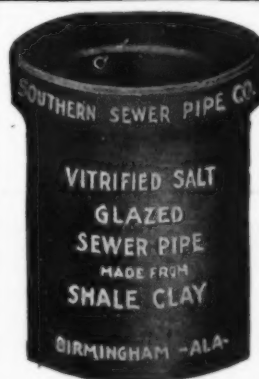
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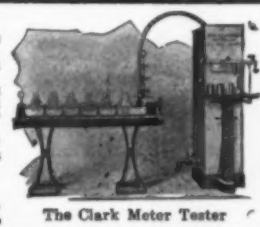
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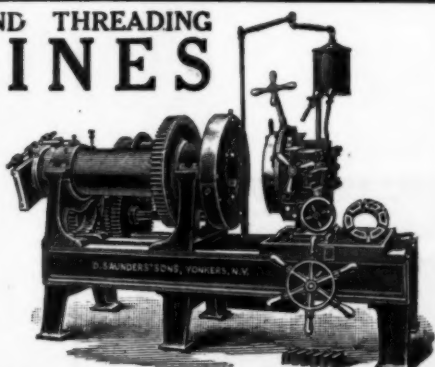
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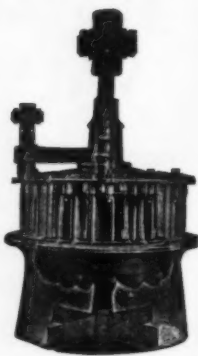
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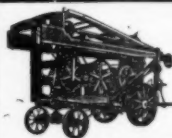
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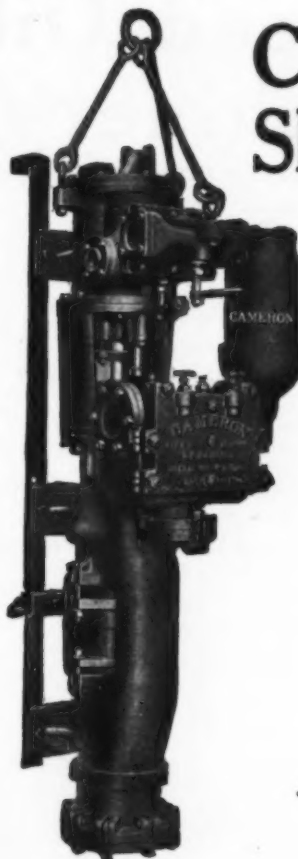
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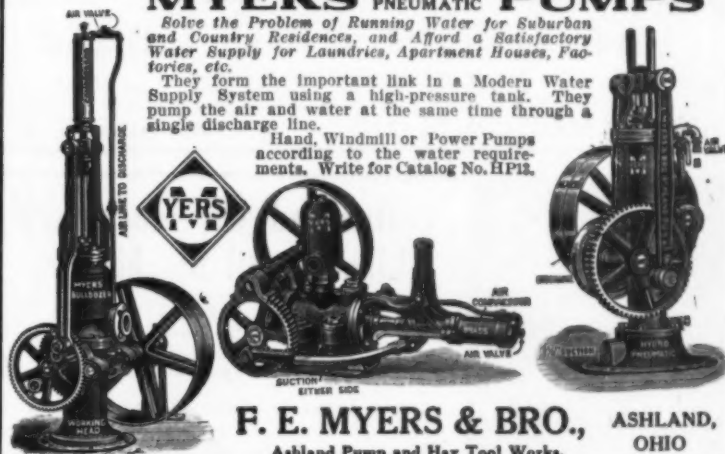
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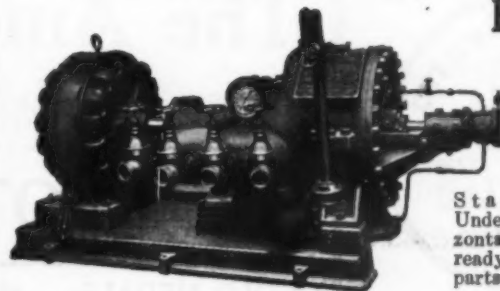
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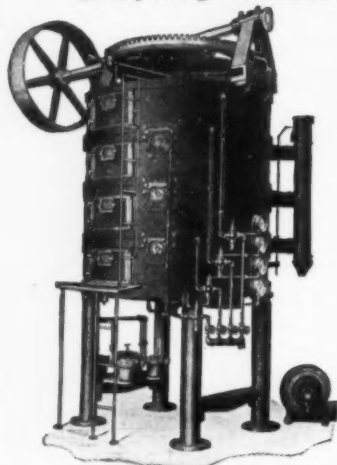
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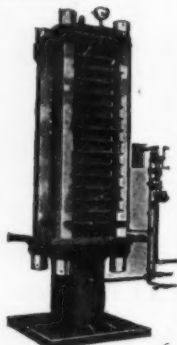
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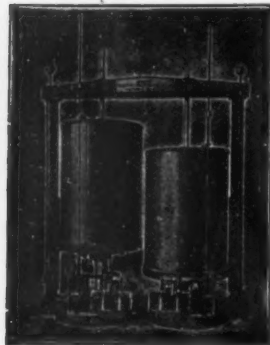
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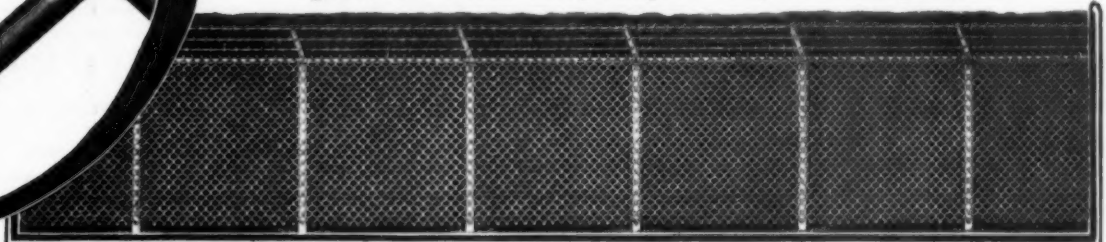
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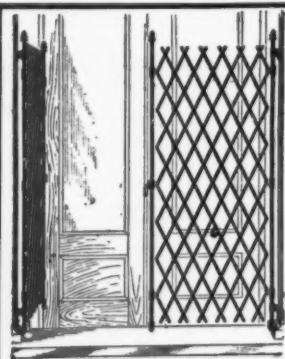
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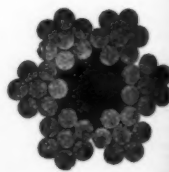


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TO UPBUILD CHEMICAL INDUSTRIES.

IN a recent issue of the MANUFACTURERS RECORD Arthur D. Little, chemist and engineer, of Boston, suggested that American money and energy might be better expended in building up a number of industries upon material close at hand than in endeavoring to duplicate the color industry which Germany has brought to such perfection. While regarding as of great value such a suggestion, Charles Catlett, chemist and geologist, of Staunton, Va., says:

The only reason why we should insist on doing those things which, on account of natural or artificial developments, others can do better than we is to preserve our independence and to guard against what may prove to be the imposition of a monopoly, or because certain developments which may be comparatively unimportant in themselves may be the beginning of more valuable work. For instance, while it is probably true that it would be possible to get more from industrial research along our own special lines than to compete with the Germans in the matter of dyestuffs, yet if it were possible to utilize the present embargo on dyestuffs to induce our capitalists and technical men to endeavor to develop a dyestuff industry, it would almost inevitably also result in the development of industrial research in other directions which he might find it exceedingly difficult to interest people to undertake.

Each of the experts quoted has sound reasons for his position, however the two may apparently differ. As we understand Mr. Little, he does not underestimate the ability of American capitalists and technicians to create a dyestuff industry from American materials rivaling that of Germany, but he sees the possibility of economic loss in that rivalry. On the other hand, Mr. Catlett is for avoiding the possibility of the embarrassments in a monopoly in dyestuffs. The potash situation justifies apprehension of the kind as to other necessities. But we believe that Mr. Catlett's second reason, the opportunity opened for the development of industrial research in more than one direction, is the more important. That reason dovetails into Mr. Little's advocacy of the greater utilization, in chemical industries especially, of materials which are now regarded largely as more or less waste. The chemist is the man to lead in research in this field, which ought to become one of the greatest in American industries, and we know of no part of the country offering greater returns than the South for such research and for the practical application of the results. In coke making, in ore smelting, in cottonseed crushing, in the handling of by-products or wastes of lumbering, in the fertilizer industry and in the economic disposal of furnace slag chemistry has already demonstrated the vast possibilities in the full utilization in manufacturing of the mineral, forest and agricultural resources of the South. But in this direction hardly a beginning has been made in spite of, or better, perhaps, because of, the very vastness of Southern resources.

As long as land is plentiful and cheap, farming is likely to be extensive, with a tendency to disregard

the policy of putting back into the soil, by cropping or by fertilizing, the elements of plant food as they are exhausted. As long as the forests are comparatively unbroken carelessness in lumbering methods is likely to be the rule. Not until a coal mine or a deposit of ore approaches depletion is much thought given to wasting as little of the material as possible in mining. Such carelessness or recklessness not only induces great waste of valuable materials, but is influential in preventing the evolution of skilled labor. Consequently the products of the industries continue to be primary in character instead of going to market in their highest and most diversified forms. The industrial chemist is qualified by his emphasis upon neglecting no possibility to point the way to a reversal of all that, a way leading not merely to making the most of materials at hand, but also to the discovery of new materials or combinations of materials. Acute situations of the past few months contain practical hints in this respect that the South should not let go unheeded.

AMERICAN PETROLEUM IN FOREIGN TRADE.

SINCE 1890 more than 5,075,000,000 barrels of petroleum have been produced in the world, the contribution of the United States to the total output having been more than 2,567,000,000 barrels. In 1890 this country produced all but 8578 barrels of the total 508,578 barrels. In 1914 this country's share was 292,000,000 of the total 406,000,000 barrels.

The part that this country is playing in the expansion of the international petroleum trade is indicated in the increase in the volume of exports of petroleum and its liquid products from 22,901,525 barrels, valued at \$130,275,268, in the fiscal year ended June 30, 1904, to 39,339,449 barrels, valued at \$78,326,565 in 1914. The export movement, though, has not been at as great a rate as production in this country. The following table comparing production by barrels in 1904, 1909 and 1914 is interesting in this connection:

	1904.	1909.	1914.
South.....	40,193,830	71,840,124	114,500,000
United States.....	117,080,960	183,170,814	292,000,000
World.....	218,299,419	298,326,073	406,000,000

In 1904 the production in this country was 53.6 per cent. of the world's production. In ten years it increased at the rate of nearly 150 per cent. to 292,000,000 barrels, or 71.9 per cent. of the total. The output of the United States in 1914 was nearly 74,000,000 barrels greater than the world's ten years before. The enormous advance in the use of petroleum or its products for fuel in engines, especially accelerated by the growth of the automobile traffic of all kinds, accounts in part for the failure of the exports to other lands to keep pace with production in this country. In other words, the home market for the home material grew more rapidly than the foreign markets, which are also open to native products and the outputs from a dozen or more oil-producing countries.

Quite a large part of the increase in production in this country has been in the South, with the trend of the center of output from the older Appalachian and Lima-Indiana fields toward the Southwest. In 1904, of the total output in this country, 42,454,781 barrels, or 41.9 per cent., were from the States of New York, Pennsylvania, Ohio and Indiana, and 40,193,830 barrels, or 34.3 per cent., were from Kentucky, West Virginia, Missouri, Louisiana, Oklahoma and Texas. Last year the first four States produced only 15,000,000 barrels, or 5.1 per cent. of the country's output, while the South produced 114,500,000 barrels, or 39 per cent., the most remarkable increase in any one Southern State having been that of Okla-

homa, from 1,306,748 barrels to 98,000,000 barrels, and California advancing in the same time from 29,649,434 barrels to 103,000,000 barrels. In the ten years, with the production in the rest of the country increasing from 76,887,130 barrels to 177,500,000 barrels, or by 100,612,870 barrels, equal to 130.8 per cent., the increase in the South was from 40,193,830 barrels to 114,500,000 barrels, or by 74,306,170 barrels, equal to 184.8 per cent. The South's output in 1914 was greater than the world's output in 1890 and within less than 3,000,000 barrels of the output in the United States ten years ago.

The growth of the world's output and of its importance in commerce in recent years is notably illustrated in a table published in the Petroleum Review of London, England, giving a list of vessels in the world carrying petroleum in bulk, their names, the names of their owners and builders, dates of their building, their ports of registry, their dimensions and their tonnage. They number 434 steamers and 57 sailing vessels, with an aggregate gross tonnage of 1,712,626, of which all but 100,148 is of steamers. That gross tonnage is about one-twenty-sixth of the total tonnage of all vessels in the merchant marine of the world. In 1904 the number of such oil-carrying vessels was 232, with an aggregate tonnage of 580,000. Five years later the gross tonnage had increased to nearly 800,000. Since then the tonnage has more than doubled. Commenting upon the situation the Petroleum Review says:

For the past quarter of a century the ocean oil-transport business has been advancing at a rate practically unequaled in the annals of any other branch of marine expansion, until today we find petroleum products being carried in bulk upon practically every sea, and journeys necessitating six or seven weeks' continuous steaming quite common things. It has been a marvelous expansion, yet one not easily pictured. From the far-off days when the carriage of petroleum in bulk on the Caspian Sea was introduced the hand of evolution has been steadily at work, and the result we see today in an enormous fleet of nearly 500 oil-tankers moving upon almost every sea of the globe.

Increase in the number of vessels has not been as marked as the increase in the dimensions of the later-built ones, there being today 125 tankers averaging each 5328 tons, and one company having ten of its twenty vessels with capacity of 15,000 tons each. Another advance noted is the growing popularity of the internal-combustion engine for use in motor-driven vessels, increasing the economies of transportation of the valuable product.

RURAL CREDITS IN FINANCE.

ANY national banking association not situated in a central reserve city may make loans secured by improved and unincumbered farm land situated within its Federal reserve district, but no such loan shall be made for a longer time than five years, nor for an amount exceeding 50 per centum of the actual value of the property offered as security. Any such bank may make such loans in an aggregate sum equal to 25 per centum of its capital and surplus or to one-third of its time deposits, and such banks may continue hereafter as heretofore to receive time deposits and to pay interest on the same. The Federal Reserve Board shall have power from time to time to add to the list of cities in which national banks shall not be permitted to make loans secured upon real estate in the manner described in this section.

These provisions in Section 24 of the Federal Reserve Act, the wise limitations of which are indicated in the darker type, are about as far as the new banking system should be involved directly in any financing with real estate, city or country, as the basis. The Sixty-third Congress, happily ended, had before it a number of "rural credits" propositions turning upon loans upon farm lands, but, fortunately, all of them, even the questionable eleventh-hour device of a rider, died a-borning. Some of the advocates of some of them will not be members of the

next Congress. May that Congress have no occasion for assembling until the regular time next winter. In the meantime its members would do well, in the absence of diversions in the way of necessity to persuade the voters into an election frame of mind or of "labors" in behalf of office-seeking constituents, to make a canvass of their respective districts in search of the real facts which have given the "rural credits" agitation whatever standing it may have in determination of the justification in the facts and in estimation of the wisdom of looking to Federal action of any kind for dealing with the facts.

Difficulties in the situation appear as soon as one begins to weigh the term "actual value of the property" in the strictly limited provision of the Federal Reserve Act as to loans upon farm lands. What is the actual value of farm land? The price of farm land tends to rise with the actual encroachment of urban settlement upon the country or with the virtual drawing near of town and farm through improved means of transportation and other communication. An expansion of gold production in the world or an inflation of the currency has also reflection in enhancement of the price of farm lands. Forced sale of a farm brings a certain price. Is that price the measure of the value of the land? Two farms with same soil, same improvements, but unequally productive, are adjacent. Which is the more valuable? Does the average yield per acre of various crops offer a gauge of the value of the land? What is the effect, then, of sharp advance or decline in the price of crops. Congress has in recent years attempted to define fundamental terms which have for many centuries been fixed by economic circumstances. Congress has demonstrated over and over again, in its ignorance of concrete material facts, its utter incompetency to deal with abstractions intelligently and to the advantage of the people of the country. Imagine the Congress undertaking to define "actual value" of farm lands. Imagine, still worse, the red-tape mind of a Government bureau essaying the same task.

Study of a paper by R. C. Cool, published on another page of this issue and discussing the question of farm mortgages will emphasize the embarrassments confronting anybody seeking to contribute his mite to the solution of the financial ills to which many farmers seem to be especially liable. The paper is published, not because we agree with many of its propositions, but in the belief that it may stimulate thinking that may work out to the benefit of the farmers. For instance, Mr. Cool cites Iowa, which carries the greatest volume of farm mortgages of any State in the country, as an illustration of the advantage in substituting in the South the mortgage upon farm land for the crop lien as a basis of credit. He calls Iowa the most prosperous farm State in the Union, and says that Iowa carries the most farm mortgages because she is most prosperous. Well, Iowa was the only State in the Union that had less population in 1910 than in 1900, the aggregate of its farm mortgages having increased from \$101,745,924 to \$204,242,722 in the ten years, the number of its farms was reduced by 11,578 in that period, and the number of acres of improved farm lands was reduced by 406,353. Did the mortgaging of Iowa farms make the value of the farms so great and the farmers so prosperous that they felt obliged to reduce their farm acreage or to quit the State? To be sure, it must be borne in mind that it is seldom that the figures of one census are comparable with those of another within any degree of reliability, and that in the very matter of farm mortgages the census is hardly adequate to present the full facts upon which sound judgment may rest. The point in Mr. Cool's paper is mentioned, though, as an example of the many that may be expected to be advanced in dealing with the whole subject of rural credits.

Essential to safety in deciding whether or not the Federal Government can do more for rural credits than enforce the law, under some amendment or interpretation of the interstate commerce law, in cases where transactions of any system that may be founded may assume interstate dimensions or activities, is full and definite knowledge of the workings of such systems in other lands. Such knowledge will lead naturally to the question whether, because there has been success in countries of comparatively small area occupied by homogeneous populations, it would be possible or desirable to attempt like systems in

this country. Consider the cotton-growing region of the South as the field of such a system, a region extending across small or great parts of fourteen States, from Virginia to Texas, and on through New Mexico and Arizona, into the Imperial Valley of Southern California. Eleven of those Southern States are really the cotton-growing section of this country, the quantity of cotton raised in the other three being comparatively slight. Of the 2,491,509 farms or plantations in those eleven States 1,618,123, containing 29,961,396 of the acres in the whole country devoted to cotton, grow cotton. Of the 2,491,509 individuals operating farms in those States 849,726, or more than one-third of the total, are negroes. The cotton farms average 18.5 acres each and their average crop is 6.20 bales. Of all the farmers 1,305,885, or 52 per cent., are tenants, and 217,085, or 8.7 per cent., are operating farms already mortgaged. Of the total of tenants and operators of mortgaged farms 694,455, or 45.6 per cent., are negroes, constituting more than half the number of tenants. That tenant-mortgager group is, almost without conscious volition, at the base of the extended credit system in the South's agricultural sections, and that group, at the mercy of absentee landlords, small merchants, themselves more or less dependent upon jobbers and manufacturers who must protect themselves against the risks involved, and exorbitant money-lenders, about the only kind of bankers with whom hundreds of thousands of farmers are acquainted, is the victim of the unhealthy system. What is there in the situation justifying hope that a Federal rural credits system could succeed or be of service?

But much of the agitation for such a system has come from influences hardly representative of material interests of the cotton-growing section. They are the ones who were largely responsible for the hysteria begotten early last fall in the "Buy-a-Bale" movement. That hysteria, like the hysteria in other parts of the country arising from the foreign war, overlooked important facts. It exaggerated the already artificially magnified importance of cotton in national economy and induced conditions that material circumstances did not warrant.

In the first place, in spite of its unique and strong position in normal times in the world's agricultural, commercial and industrial affairs, Southern cotton, in its greatest year and with a value, including its seed, of \$1,040,000,000, represented only 28.6 per cent. of the total value of annual agricultural production in the South and only 11.9 per cent. of the aggregate value of annual production of \$8,702,000,000 in that section, in manufacturing \$3,900,000,000, in agriculture \$3,630,000,000, in forestry \$700,000,000, and in mining \$472,000,000.

The annual value of production in the whole country in those lines is \$40,000,000,000. Of that only \$2,400,000,000, about 6 per cent., is represented in annual exports of merchandise. The war did not entirely end the export trade. It did not cut the value of the cotton crop in half, as was expected in the hysteria. Indeed, the returns from the crop to date have been somewhat remarkable in view of the fact that the 1914 crop was the largest that had ever been raised, and came upon the market at a time when, regardless of the war, there would have been slackness in buying by some foreign countries.

Cannot the facts about cotton be taken as a guide to caution in attempting Federal action as to rural credits? Is there not at hand in the South the remedy for local credit troubles? Why not adapt to the rural situation the building and loan association ideas that have been so eminently successful in cities and towns, with an enlargement by way of guaranteed bonding propositions insuring a safe, sane and workable basis for the handling in the Federal reserve system of securities based upon land values?

RAILROADS BETWEEN SCYLLA AND CHARYBDIS.

THE recent suggestion made by President Samuel Rea in the annual report of the Pennsylvania Railroad Co. is one of the most notable utterances which ever proceeded from the head of a great corporation that is subject to regulation by an agency of the General Government. Briefly put, he recommended that the Interstate Commerce Commission

should be clothed with power by law to strengthen the railroads so as to encourage the investment in them of private capital required for their expansion and also to conserve their credit by granting them reasonable rates commensurate with the increased expenses imposed upon them by legal requirements and Government awards, etc.; furthermore, that the Commission should be enlarged and reorganized so that it might deal promptly with railroad questions, and also that the Commissioners should be placed beyond the influence of politics by long terms of office, with salaries ample to draw and retain men of adequate ability and experience.

In connection with these general recommendations President Rea presented several supplementary suggestions making clear the reasons for the proposed enlargement of the powers of the Commission and the advised increase of its membership, mentioning particularly authority to reduce or advance rates as might be advisable, to regulate the revenues of the railroads for carrying the mails and the parcel post, and other questions of either expenses or revenues, and he finally pointed out that increases of wages, etc., should not be allowed unless the rate schedules were sufficient to bear them or the Commission was prepared to approve rate increases sufficient to meet the advances of pay without lessening the credit of the lines or their efficiency.

These remarks are weightily pertinent to the existing railroad situation. Conditions with respect to the railroads of the United States were never more serious and deserving of deep and painstaking consideration than now. In spite of the fact that the whole trend of railroad operating for a number of years has been in the direction of hauling the greatest number of cars of freight in a train for the purpose of reducing the cost of transportation per ton per mile, millions of dollars being expended for heavier motive power and rolling stock, all equipped with the most powerful train brakes with this end in view, the efforts of other men, in lawmaking bodies and elsewhere, have simultaneously been directed in such manner as would nullify the endeavors of the railroad managers, notwithstanding that the companies are employing more men than ever to conduct their business, and also that it is safer than ever for both the employees and the patrons of the roads.

Deep in financial and operating problems which demanded the combined and utmost thought and study of the ablest railroad managers of the country, the companies found that no sooner were they about to receive a morsel of what they had asked from the Interstate Commerce Commission than they were confronted by increased demands from employees, backed by political influence, and which threatened to neutralize the modest benefits that were granted. At the same time proposed legislation in this and that State appeared to prevent the operation of trains longer than a certain number of cars, this being in addition to the full-crew laws (really excess-crews laws, according to the claims of the roads, supported by evidence from their operating officers), to which reference was recently made in these columns. And these complexities have come about at a time when the decline in railroad traffic as compared with late years has been appalling, the falling off in operating revenue on the Pennsylvania system alone in 1914 being over \$38,000,000 as compared with 1913.

Here is legislation or proposed legislation which would stop progress with respect to railroad practice. Engines and cars of large capacity have made possible here today the lowest freight rates of any country in the world, yet ill-considered laws would prevent the public from enjoying the advantages which railroad equipment and heavy roadways are extending to the people. If this sort of lawmaking is to be continued, the companies will not be able to meet the requirements of business when finance and commerce flow again in their usual channels and resume growth at the rate of progress which they followed during the last twenty years. In such an emergency the outlook is most gloomy for the railroads, and it behooves everyone to lend aid toward checking the demands upon them in order that their credit may be more firmly established and financing assured for them to fully play the great part which they are obliged to assume in the economy of our times.

"BUILD NOW" IN ADVERTISING.

ONE of the incidental, but by no means least important, results of a community's undertaking a campaign of "Build Now" in a time of general slackness or depression is the advertisement of the initiative and energy of that community and of its faith in itself, qualities likely to attract to it capital of money, mind or muscle. Practical demonstration of these qualities is worth more to a city than the circulation of thousands of booklets telling of its admirable location for industry, trade or commerce, and at the same time sets loose the elements potential in overcoming depression, actual or imagined. It contains, too, a suggestion worthy of careful study by legitimate advertisers of all kinds—the adoption and adaptation of the "Build Now" principle in advertising. Advantages of doing so become more manifest in contemplation of the experience of the American Radiator Co. in the past year as set forth in the New York Sun summarizing some of the figures in the annual report of Clarence M. Wooley, its president. In spite of the dullness in many lines reflected, of course, in building operations, this company had a balance for dividends greater than that in the preceding year, with net profits \$207,808 greater and the surplus increased by \$423,396 to \$7,127,586. In explanation President Wooley said:

The high interest rates which prevail greatly restricted the construction of new buildings throughout the country. The number of permits issued was considerably smaller than in the preceding year. Greater effort was made, therefore, through promotional and advertising efforts, in conjunction with the more intensive personal canvass by the sales organization to effect employment of modern heating systems in a larger percentage of new buildings. While the greater part of the demand for boilers and radiators comes from the construction of new buildings, their introduction in old buildings has become a very important part of the total demand. The business from this source is gradually increasing.

Suppose, at the prospect of fewer buildings being erected in 1914 than in 1913, this company had decided to slacken its activities, reduce its output and cut down its advertising; what might have been the result?

Answer: Some loss of prestige among architects, builders, contractors and others accustomed to depend upon the company because of its faith in itself shown in persistent advertising, cultivation of the feeling of depression through a diminution in the number of its employees or in the time of their employment, together with real depression accentuated by the crippling of the employees' spending ability and a decrease in the earnings of the company.

A wiser policy prevailed, however. Its argument was probably something like this: Fewer buildings may be erected this year. All right. Why should that mean fewer installations of modern heating systems? Is it not possible to have a greater proportion than ever of such systems installed in more new buildings? The result will be as good, even though it may not be better, as if the number of new buildings should not be less. How about supplementing work in this direction by developing a stronger demand for boilers and radiators to be installed in old buildings? A splendid idea. But the ends will not be attained by merely hoping for it or thinking that it can be done. We must build for it, and build now. Our publicity work must be intensified. We must advertise the advantages of our heating systems more widely and more emphatically than ever. No sooner thought than done.

Results: Greater profits, larger dividends and increased surplus, and, which is of more importance, distinct exemplification of the value, especially in times of stress, of the well-directed advertisement.

The publicity manager of the American Radiator Co. is fitted for his task. He undoubtedly believes in "Build Now" in advertising.

"Tampa, Today and Tomorrow," is the title of an attractive booklet published by the Board of Trade, L. P. Dickie, secretary, which that organization is circulating widely as a means of advertising, not only the city, but the territory tributary to it.

Novel View of Farm

Mortgage in Finance

By R. C. COOL of North Carolina.

During a recent hearing of the "Rural Credits" Committee in Congress one of the Congressmen characterized our present system of farm management and credits in the South as similar to the peonage system in Mexico. The statement was made on the spur of the moment, and may not be altogether apt, but there is more than "a grain of truth in it." In principle, the two systems work to the same end. In principle, the Mexican system of peonage is one of land monopoly and ours one of credit monopoly. We have been seeing for some time past the extreme to which the Mexican system has reduced that country, and we have just had a mild indication of what our system can do to us. It brought us to our knees in a begging campaign, our organized "buy-a-bale" movement, that probably has never been equaled, and created a demoralization and hysteria pitiful to contemplate, and, as the years go by, will assume more and more the aspect of a disgrace. Yes, the war caused our trouble, and it was beyond our power to avert the war, but the pathetic part is that, with all our natural resources of forests, minerals, fertile lands and favorable climate, we had not, after 60 years of peace and prosperity, accumulated enough capital, initiative, energy or reserve force to carry us over a temporary restriction of the market of one of our crops. The situation is made more pathetic in the face of the fact that that crop can be held indefinitely without deterioration and is the only farm crop in the world that can be.

In 1913 the farmers of Kansas lost practically their whole corn crop through drought, sustaining a net and absolute loss of over \$50,000,000, which is as much and probably more than the South stands to lose on its 1914 cotton crop. Still, in her trouble, Kansas not only did not ask for aid for her farmers, but absolutely refused to accept it when it was offered. She didn't need it, while we virtually scoured heaven and earth for help. Kansas is a babe in point of years compared to us. Our resources and opportunities are a thousand to her one. She has had more droughts, cyclones, grasshoppers, sandstorms and troubles to the acre than we have had to the square mile. Why is it, then, and what is the reason Kansas could take her loss and calamity with calmness and fortitude, while our little setback threw us into a panic?

The reason is fundamental, and if we can get at it we can readily see the source of her strength and of our weakness. It can be summed up in a few words. Kansas farms are mortgaged to the extent of \$70,000,000, an amount equal to the mortgages carried on the farms of North Carolina, South Carolina, Georgia, Florida, Tennessee, Alabama, Mississippi and Arkansas combined. In other words, Kansas farms are carrying Kansas farmers and Kansas lands are the security for Kansas finances, and Kansas lands are sound and stable. Commission merchants and fertilizer manufacturers are carrying our farmers, our security is the crop ahead of us and it is unsound and unstable. Our system is the weakest, where it should be the strongest.

Kansas farmers, and the same is true of most other sections, take the legitimate profit from the land, recog-

nize the land as the source of their wealth and handle and care for it accordingly. We gamble each year on the ability of the man and the mule to get so much cotton from a given amount of fertilizer, and the larger part of our liquid finances, business energy and thought is wound up in and taking part in this gamble. The greatest trouble is that the gamble has been so fascinating that we have neglected to learn how to feed or clothe ourselves, but have been content to pay two to five prices to someone else to do this for us. In consequence, our cotton crop has been spent each year before it is made and has not netted us, as a section, a penny in the last 50 years.

Our gambling game is not different from other gambling devices, and lends itself readily to the use of stacked cards. A few do the dealing of the credits, the flour, the whiskeys and the grits, hold the trump cards and rake in the chips. That is our system of peonage, and our undeveloped men and uneducated children are the result of this system.

Each Kansas farmer forms an independent unit of that State's strength because he owns and controls the security under and by means of which he carries on his business. Our farmers are a source of weakness to our national life because their security is problematical and is ahead of them instead of behind and under them, and we can never build up a profitable agriculture and prosperous farmers until our farmers can get to the point where they can place their confidence, their energies, their ambitions and their hopes in the land instead of in the merchant and the fertilizer manufacturers. Long-time credit based on the land and its ability to produce will give the farmer more energy, more latent power and more incentive to diversify crops than any other one thing, and will also build up every industry in the South quicker than can anything else.

It is an economic fact that the more farm mortgages the greater the prosperity, and the greater the prosperity the more farm mortgages. Iowa is the most prosperous farm State in the Union, and Iowa carries the most farm mortgages, and Iowa carries the most farm mortgages because she is the most prosperous. If we can borrow more money on our farms, we can make a greater profit out of our farms and raise their value so we can borrow more money on them up to the point where the capacity of the land is reached. That is what Iowa and all the Middle West is doing.

I believe that more people than ever before have been brought to realize how unsafe and how uneconomic our system has been, and that the next few years will see an enormous increase in the farm mortgage business in the South. The movement is already started, and it should not be long before Southern farm mortgage securities have taken their place with the other securities throughout the country, and when our own banks will look upon farm mortgages as a safer investment than crop liens. It will take time to put our lands on the basis of other farm lands, as compared to productive capacity, but that time will come, and when it does we will have entered into our rightful station, which is at the head of the financial and industrial life of the nation.

Farm Land Holdings in the South

Whatever may be the outcome of the various movements from different starting points for the building up in this country of a system or systems of rural credits banking, the foundation must be farm lands. Judgment of wisdom of this or that plan must turn upon the possibilities revealed in existing facts, and the greater the number of such facts and the more comprehensive, the better will be the judgment. As the various movements seem to have their strongest support in the South, some facts about land holdings in that section may be of interest as suggesting the line of investigation that should be followed before any serious attempt is made to crystallize wishes or theories into definite propositions.

Between 1900 and 1910 the value of all farm property—land, buildings, implements and machinery and livestock—increased from \$5,262,278,962 to \$10,971,865,176, or by \$5,709,586,214, equal to 105 per cent. in the South, and in the rest of the country from \$15,177,622,202 to \$30,019,583,914, or by \$14,841,961,712, or at the rate of 97.7 per cent.

The rates of increase were greater for farm lands alone. In the South the increase in value was from \$3,233,461,752 to \$7,337,319,297, or by \$4,103,857,545, equal to 126.8 per cent., and from \$9,824,546,240 to \$21,138,354,872, or by \$11,313,808,632, equal to 115.1 per cent. in the rest of the country.

Data are not available for reliable statement of in-

Value of All Farm Property Operated by Whites.

States.	1910.		1900.	
	Total.	Tenants.	Total.	Tenants.
Alabama	\$272,767,681	\$74,065,657	\$132,481,529	\$32,831,506
Arkansas	312,931,573	88,147,457	147,220,489	37,108,804
Dist. of Colum... ..	8,382,862	2,726,676	11,230,784	3,292,452
Florida	127,772,555	9,733,971	47,457,291	3,940,671
Georgia	422,667,196	137,615,844	179,665,683	54,123,740
Kentucky	755,526,390	173,294,635	400,091,384	103,910,479
Louisiana	244,697,247	51,805,269	160,506,608	23,525,323
Maryland	273,915,229	93,451,804	196,435,535	72,040,834
Mississippi	238,753,608	47,721,325	117,733,593	20,636,582
Missouri	2,038,795,640	540,049,360	1,025,151,594	248,741,304
North Carolina.. ..	456,291,410	105,947,835	204,866,528	45,903,725
Oklahoma	859,340,810	369,242,139	252,459,783	84,933,017
South Carolina.. ..	273,774,540	70,116,323	109,589,887	25,699,088
Tennessee	558,434,606	136,481,729	314,459,889	78,002,820
Texas	2,105,652,301	696,250,730	906,237,063	223,398,758
Virginia	570,316,476	99,200,309	298,986,961	61,830,039
West Virginia... ..	313,432,473	53,489,242	203,079,638	32,680,771
Total	\$9,843,452,597	\$2,749,880,305	\$4,767,654,239	\$1,152,599,913
United States... ..	\$39,712,214,845	\$11,802,590,020	\$19,893,177,656	\$5,271,750,862

Value of Farm Land Operated by Whites.

States.	1910.		1900.	
	Total.	Tenants.	Total.	Tenants.
Alabama	\$157,619,496	\$45,363,913	\$71,087,761	\$18,938,008
Arkansas	188,068,595	56,900,390	82,443,770	22,756,170
Dist. of Colum... ..	7,127,350	2,360,250	9,423,930	3,057,650
Florida	84,440,348	6,247,172	27,124,480	2,397,910
Georgia	264,497,825	90,735,391	105,995,780	34,969,860
Kentucky	472,225,751	118,383,958	283,885,870	69,800,940
Louisiana	151,000,372	34,952,372	83,520,380	14,697,220
Maryland	156,352,922	58,226,874	115,518,630	46,173,140
Mississippi	133,608,805	28,125,634	59,801,040	11,231,370
Missouri	1,435,404,619	407,721,690	689,614,693	181,944,890
North Carolina.. ..	287,802,767	71,840,941	122,764,180	29,962,970
Oklahoma	608,004,918	267,218,596	137,958,970	43,762,770
South Carolina.. ..	184,728,269	49,819,044	69,613,670	17,294,950
Tennessee	336,171,390	88,250,740	185,058,000	49,958,940
Texas	1,554,465,053	533,578,173	554,098,202	151,127,723
Virginia	362,105,272	68,052,227	186,133,370	41,152,300
West Virginia... ..	206,247,170	39,746,207	133,715,440	22,954,620
Total	\$6,590,560,862	\$1,967,523,572	\$2,917,758,166	\$762,241,431
United States... ..	\$27,615,515,334	\$8,881,131,798	\$12,707,961,424	\$3,696,454,452

crease in farm mortgages in comparison with the increase in the value of farm lands during the decade, because of some change in instructions to agents of the census as to classification of farm lands and also because of an actual diminution in the acreage of farm lands. But, as bearing directly upon the question of farm mortgages as a basis for national banking, figures as to the classes of operators of farms are of direct interest.

In 1900, of the total of 2,895,590 farm operators in the South, 1,313,165, or 45.3 per cent., were tenants. In 10 years the total number increased by 468,365, or at the rate of 16.1 per cent., to 3,363,955, of whom 1,615,175, or nearly 47.2 per cent., were tenants, their number having increased by 302,010, or at the rate of 22.9 per cent. In the rest of the country the increase in the number of tenants had been at a rate less than that of the increase in the total number of farm operators, the total number increasing from 2,841,782 to 2,997,574, or by 155,792, equal to 5.4 per cent., and the number of tenants from 711,790 to 739,501, or by 27,702, equal to 3.8 per cent.

Bearing in mind the qualifications as to a comparison of acreage in farms in 1900 and 1910, it appears that while there was an apparent decrease of 6,962,754 acres in the area of Southern farms in the 10 years, although the area in improved lands increased by something more than 25,000,000 acres, the increase in farm area in the rest of the country was 47,169,305, or at the rate of 10.6 per cent., the increase in area operated by tenants being 19,001,459 acres, or at the rate of 18.9 per cent. in comparison with an increase of 12,477,847 acres, or at the rate of 13.1 per cent. in the South. The showing in favor of the South in this matter of tenant operations of farms is changed, with probably greater significance, when the value of farm lands and of all farm property is further studied. In 1900 the farm lands in the South operated by tenants had a value of \$1,089,067,211, about one-third of the total value of all such lands in that section. In 10 years the value of the tenant-operated lands had increased \$1,399,065,857, or by 128.5 per cent., to \$2,488,673,068, while the rate of increase in the value of all farm lands in the South was only 126.8 per cent., and amounted to \$4,103,857,545. The increase in rate tenant operations in the rest of the country was not much less than that in the South, the actual increase of \$3,812,617,097 having been equal to 121.6 per cent., while the increase in the value of all farm lands

in the rest of the country, amounting to \$11,313,808,632, was at the rate of 115.1 per cent.

As to the value of all farm property, the increase in that operated by tenants was at the rate of 136.3 per cent., compared with the rate of 105 per cent. for all farm property in the South, and at the rate of 122.5 per cent. compared with the rate of 97.7 per cent. for all farm property in the rest of the country.

The apparent decrease in farm acreage in the South was in spite of an increase in the area operated by white tenants of 10,761,280 acres and of 1,716,567 acres in the area operated by negro tenants, and while the number of all farm operators increased by 468,365, or at the rate of 16.1 per cent., the great increase was in tenant operators, 302,010, or at the rate of 22.9 per cent.

In the value of farm lands operated by whites there were increases from \$2,917,758,166 to \$6,590,560,862, or by \$3,672,802,696, equal to 125.8 per cent. But the increase in the value of such lands operated by white tenants was at the rate of 159.4 per cent. In a case of negro operators there was a total increase from \$315,703,686 to \$746,758,435, or by \$431,054,749, equal to 136.5 per cent., but the increase in the value of lands operated by negro tenants was at the rate of 129.8 per cent.

The increase in the average value per acre in the 10 years was from \$8.18 to \$18.90, or at the rate of 131 per cent. for all farm lands, this calculation being modified, of course, by the changes in classification of farm lands between 1900 and 1910, and from \$11.47 to \$23.17, or at the rate of only 102 per cent., in the case of lands operated by tenants.

Details by States of values of all farm property and of farm lands alone in 1900 and 1910 are given in the accompanying table.

Missouri Manufactured Tobacco.

Missouri manufactured last year 66,252,123 pounds of plug tobacco, worth approximately \$33,000,000 and representing about 40 per cent. of the output in the whole country. In addition, according to Commissioner John T. Fitzpatrick of the State Bureau of Labor Statistics, the State factories turned out 7,822,641 pounds of twist, 2,055,802 pounds of smoking tobacco and 2827 pounds of snuff, making 76,133,393 pounds of manufactured tobacco in one year.

Value of All Farm Property Operated by Negroes.

States.	1910.		1900.	
	Total.	Tenants.	Total.	Tenants.
Alabama	\$97,370,748	\$74,350,258	\$46,918,353	\$37,655,859
Arkansas	87,157,730	59,731,284	34,195,512	24,136,021
Dist. of Colum... ..	93,671	33,574	304,592	126,383
Florida	15,410,628	5,842,599	6,471,773	2,765,044
Georgia	157,879,185	131,308,347	48,708,954	40,881,624
Kentucky	18,271,490	8,610,385	10,954,472	5,865,754
Louisiana	56,523,741	39,340,239	38,030,298	29,621,123
Maryland	12,251,799	6,073,562	8,209,872	4,661,285
Mississippi	187,561,026	142,041,453	86,487,434	68,128,292
Missouri	14,121,848	6,312,742	7,970,303	3,873,337
North Carolina.. ..	81,424,800	53,356,421	28,968,165	19,841,569
Oklahoma	58,858,072	18,084,463	25,065,650	3,051,190
South Carolina.. ..	118,353,774	89,040,537	44,001,272	32,608,709
Tennessee	54,086,230	36,770,012	26,742,136	19,121,306
Texas	112,992,863	71,863,037	56,239,210	34,602,622
Virginia	54,748,907	18,492,833	24,529,016	10,970,697
West Virginia... ..	1,306,067	363,747	827,711	282,527
Total	\$1,128,412,579	\$762,515,493	\$494,624,723	\$338,193,350
United States... ..	\$1,279,234,245	\$819,582,288	\$546,723,508	\$357,149,492

Value of Farm Land Operated by Negroes.

States.	1910.		1900.	
	Total.	Tenants.	Total.	Tenants.
Alabama	\$59,324,679	\$45,762,609	\$29,077,810	\$23,895,050
Arkansas	57,952,855	41,027,513	22,662,880	16,724,890
Dist. of Colum... ..	66,000	28,000	276,300	114,000
Florida	9,297,717	3,562,803	3,698,536	1,664,410
Georgia	105,855,590	89,300,521	32,519,650	27,877,420
Kentucky	12,238,866	6,418,322	7,231,560	4,176,400
Louisiana	36,202,905	25,685,099	24,209,830	19,319,100
Maryland	7,098,692	3,821,182	4,848,920	2,931,390
Mississippi	120,393,484	93,189,687	55,055,620	44,627,570
Missouri	10,577,770	5,038,765	5,856,030	3,037,180
North Carolina.. ..	55,362,178	37,931,340	19,191,600	13,657,290
Oklahoma	40,971,750	13,330,427	11,438,930	1,537,500
South Carolina.. ..	84,046,645	65,616,493	30,192,190	23,050,410
Tennessee	35,244,393	25,026,417	16,955,790	12,567,530
Texas	78,742,082	52,506,007	37,452,600	24,155,940
Virginia	32,553,640	12,662,184	14,481,710	7,282,440
West Virginia... ..	828,589	242,127	553,670	206,630
Total	\$746,758,435	\$521,149,496	\$315,703,686	\$226,825,780
United States... ..	\$860,158,835	\$569,561,478	\$350,046,571	\$242,015,870

Baltimore's Filtration Plant.

It is expected that the plant for the filtration of the water supply of Baltimore city will be completed this year. Construction was begun in June, 1912, upon the new concrete dam at Loch Raven, and this was completed last November at a cost of \$475,000. It impounds 2,000,000,000 gallons of water. Additional conduits connecting the new dam with the existing Loch Raven-Montebello tunnel was built, and also seven miles of road and two bridges, one 600 feet long and the other 1000 feet long. The first contract on the filter-water reservoirs was awarded in November, 1912, and filtered water is expected by next July. The plant involved other construction and improvement work, all of which will be rounded out in 1915.

\$2,500,000 for Stockyard Betterments.

An expenditure of \$2,500,000 has been decided upon by the Kansas City (Mo.) Stockyards Co., George R. Collett, manager, for extending, improving and rebuilding the existing facilities. About \$1,000,000 will be invested for track and terminal construction, the remainder to be available for other work. It is proposed to increase hog barns from 40,000 to 50,000 capacity and rebuild of concrete, increase sheep barns from 50,000 to 60,000 and increase cattle-handling capacity from 50,000 to 65,000 daily. The details have been practically outlined, and the improvements will be pushed to completion.

To Drain 58,000 Acres.

New River Drainage District, L. Picard, president, Gonzales, La., has let contract for the construction of its system, which will drain about 58,000 acres. J. B. Gore & Co., Shreveport, La., have the contract at about \$130,000, and will deepen from 6 to 15 feet for a distance of about 30 miles a stream varying from 25 to 64 feet wide.

Charlotte spends annually \$3,480,000 in freight charges, according to Traffic Manager W. S. Creighton of the Charlotte Shippers and Manufacturers' Association.

Future Relations of Manufacture to Transportation*

By H. P. BOPE, First Vice-President Carnegie Steel Co.

We are all dealing in "futures" today. Not those of the stock markets, but in relation to prosperity, to operations, indeed, to all the manifold activities of life. The capital upon which one bases his investment for the future is faith and hope, and it is pretty good coin of which to have a supply.

We face the future tonight in any discussion of what it is likely to bring forth with the same glittering coin of faith in our country and its people and the hope that that future will be in a larger measure filled with those good things which confidence, energy and ambition will produce, and thereby the larger destiny of the nation be fulfilled.

Naturally, some of the conditions of the past enable us, from our experience, to give some judgment as to the future. It is to a few of these conditions I wish to direct attention now.

First, as to manufacturing on a large scale which produces freight for the railroads. With all conditions pointing to the district east of the Mississippi and north of the Ohio continuing to be what it is today, the great manufacturing locality of the country, and certain to increase with the growing needs of the country, what shall be the relation of the railroads to this district? They must study the problem, as doubtless they have, but with increasing interest, from the standpoint of a great freight-producing center, but in two ways: In the promotion of better facilities for the inter-mill and inter-district production and consumption, but in a larger way for a nation distribution, if not, indeed, for the world. It is not my purpose to tell other people how to run their business. It is desirable, however, to point out conditions now existing and likely to become more exigent. As manufacturers our problems must be, indeed are today, the effect of this close production on competition, and how best to distribute our production to help both the transportation lines and ourselves. I am convinced a large solution of the problem lies in an efficient co-operation among all the interests concerned. Co-operation among the manufacturers first to minimize drastic competition, which, being war, carries with it all the results of war. Co-operation which tends in seasons of great activity to prolong prosperity by a fair consideration of values so that all the profits do not inure to the manufacturer by making higher prices than real conditions justify, but by a maintenance of stable conditions which produce a fair share of profit to both buyer and seller, and at the same time enables the seller—the manufacturer—to give an equally fair return to labor. In seasons of depression to have a minimum of price-cutting or tonnage securing which effaces values for all, but on the other hand gives the maximum percentage of operation at a price which covers some profit and insures a better distribution of employment to labor. This is socialism for the benefit of all, and not for the few, if you care to take it in that way. I honestly believe the Steel Corporation is actuated largely in its operations by just such a spirit. Kindly consideration on the part of our competitors shows they believe that is our real desire. It does not mean the millennium, but it does mean that in the relations of man to man in business we are gradually approaching that higher plane which calls for fair and square dealing and a larger appreciation of others' difficulties, problems and needs than has ever existed before.

With the railroads' co-operation means an appreciation of and sympathy with their peculiar difficulties and problems also, and a real desire to aid by the payment for the commodity they sell—service—on a reasonable basis to give a fair return on the capital invested. As a rule, we have not opposed the desire of the railroads for a higher remuneration. They have but one thing to sell, and cannot fix the price of that, so we must give intelligent consideration of their needs, accept no service for which we do not give proper return, knowing that in aiding them we are aiding ourselves. On the other hand, there is something due the manufacturer from the railroads. A study of past conditions shows that when the railroads have been buying the most freely there has

been the greatest prosperity, and conversely, the greatest depression. Is it not possible to obtain a more equal division of these purchases, so that they may not all largely come in a short period, creating demands which overtax every facility of manufacturing, causing dissatisfaction, delays and loss, to be followed by little or no buying when the changed conditions mean reduction of values, output and employment? There is a certain steady depreciation each year due to use. Let these demands come with regularity; not always to the highest point, that would be too much to expect, but with some percentage in a fixed range. This would mean steadier operation, more stable values and a larger measure of return for both producer and transporter. Co-operation will solve many of our problems if maintained on the broad basis of honesty, integrity and fair-dealing.

The second problem which has a decided effect on the future relations of manufacturing and transportation is that of legislation. It is difficult to speak with patience of much of the legislation that has been enacted during the past decade. We have apparently gone "legislation-mad." Regulation of everything under the sun has been attempted. Paternalism has run riot, with so far but little good results and an immense increase in cost of government without compensating return. Ever since 1909 we have had almost continuous sessions of Congress. Add to this enormous volume the enactments of State Legislatures, and it is not surprising that the gray matter under the thatch of the lawyer has gone stale from the very demands made upon it. Codification and recodification has been ineffective to digest this enormous mass of legislation, some ill-advised, much ineffective and little of real permanent value. The railroads have had more than their share of these enactments. Therefore another form of co-operation may I suggest for your consideration. This seems to be the day of government by commission. It has not yet been fully demonstrated that such government is bound to be successful. It is in an experimental stage. For one, I do not feel that the expansion of trade in this country, so much of which is due to the railroads, could or would have been possible had the Interstate Commerce Commission been in existence during that period when railroad building was so active, and when faith in the future was so large an element in the development of the country. It was no time for restrictive measures, and while it may be conceded that some errors were made, the conditions were created by the people themselves. But that is past history, and too much has been exacted for past blunders. What is a remedy for this excessive legislation? Let us so amend our State constitutions, or, if this be not necessary, by enactment create one more commission, composed in part of good lawyers and in part of good business men, thoroughly familiar with commercial conditions. The duty of this commission shall be to pass upon all proposed legislation before it is even submitted to the Legislature. If it is unnecessary, then all expense connected with the consideration of a measure can be avoided, for it is passed upon first as to its legality, secondly as to its commercial necessity. Many measures are introduced purely for political effect in a member's own district, and have no relevancy to general conditions. To such measures a commission can be merciless and possibly we can eliminate the petty politician. Certainly the number of measures can be reduced and more intelligent legislation can be expected. No really good measure will be turned down by such a commission, and then it can take its usual course. Such a commission should be non-partisan, for its object and its duty would be to prevent vicious and unnecessary legislation, thereby saving expense and promoting better legislative action. The objection might be urged that too much power would be placed in the hands of such a commission. Their duties are but State wide, though it may be questioned if, indeed, such an arrangement would not benefit Congressional action as well. We have been content to place in the hands of three commissions all the great activities of this country in transportation, banking and manufacturing, why not go just one step further and create a body to improve legislation? Then there would

not be so much for the other commissions to do. Faulty laws have made a great deal of the trouble from which we have suffered in the past decade, together with too much repressive and discriminatory legislation.

With such a view would it be too much to ask the great interests of transportation and manufacturing to co-operate in the development of a public sentiment favorable to such action? We do not wish to control legislation. Only better it for the general good. It is recognized now that the great corporate activities of the country are neither soulless nor selfish. What has been done in the past few years in the way of welfare and safety speaks for itself.

FOR 3500 TONS OF STEEL.

Contract for Structural Material Awarded Virginia Bridge & Iron Co.

The Ocean Steamship Co. has let the contract for the steel in its steamship terminals at Savannah, Ga., to the Virginia Bridge & Iron Co., whose general offices are at Roanoke, Va. Approximately 3500 tons of structural steel will be required for this work. The Ocean Steamship Co.'s new terminals at Savannah will involve the expenditure of nearly \$1,000,000. The general plans include a slip 1020 feet long by 225 feet wide, with 26 feet depth at low water. Reinforced concrete bulkhead will extend along the Savannah River and around three sides of the slip. Reinforced concrete is used throughout for the wharves and flooring, with concrete pilings and foundations. The steel freight sheds, together with a two-story office building 175x52 feet, cover 11½ acres. The Virginia Bridge & Iron Co.'s contract is for the steel work in the sheds and office building. The Ocean Steamship Co. operates freight and passenger lines between New York and Savannah and between Boston and Savannah, and handles in normal times a large part of the water shipping between this Southern port and the Northern centers. The construction of these terminals is a progressive move on the part of the steamship company to increase its modern up-to-date facilities for the quick and economic handling of water freight.

CHARLESTON AS A COAL PORT.

Trade to Be Developed by the Clinchfield Navigation Co., Recently Organized.

The Clinchfield Navigation Co., Inc., a New York State corporation, was organized the latter part of February, 1915, to engage principally in the water-borne coal trade. It is the intention of the Clinchfield Navigation Co., Inc., to procure a number of ships of American register for this purpose, and already the steamer International, built in 1914, has been purchased and will be ready to go into service in May. This steamer is a bulk cargo carrying vessel of 3000 tons dead-weight capacity, built to the highest class Lloyds, and it is believed is particularly well equipped for handling business from Charleston, S. C., to the Gulf and West Indies ports. As this ship will be ready for service prior to the completion of the coal pier of the Southern Railway at Charleston, S. C., she will probably make her first trips from one of the Hampton Roads ports, but the primary purpose of organizing the Clinchfield Navigation Co., Inc., was to handle coal from Charleston, S. C., at which point very extensive terminal improvements are contemplated. The Clinchfield Navigation Co., Inc., will also within a very short period have in service at Galveston, Tex., a self-unloading coal barge of large capacity, and with the most up-to-date system of bucket and conveyor unloaders, to handle the bunker business at that port, where the Clinchfield Fuel Co. has several substantial contracts.

This marks an important step in the development of Charleston, S. C., as a port for the export of coal. Receiving from the railroads the same export rate from the Southwest Virginia coal fields as is obtainable at the Hampton Roads ports, it is expected confidently that a very considerable tonnage will soon be moved out of Charleston, S. C., where the Government has provided a channel deep enough for the largest ships and a harbor capable of handling any amount of tonnage.

The terminal facilities now being installed by the Southern Railway consist of a long pier, with car dump at the end, and the capacity of this car dump is rated

*From an address before the Traffic Club of Chicago.

at a car every two minutes, or 1500 tons an hour. Such a dumping device will handle coal faster than it can be trimmed in any vessel other than a bulk cargo, self-trimming ship. At the present time the long pier has been completed and the foundations for the car dump are almost installed. As the steel work was ordered some time ago, its erection should not cover a period of much over a month. Unless, therefore, unforeseen obstacles arise, Charleston, S. C., will become a port for sea-borne coal movement early in the present summer.

The Clinchfield Navigation Co., Inc., is now in the market for further coal-carrying tonnage, and has several modern steamers under consideration, it being expected that the steamer International, for which application is being made to change the name to Clinchfield, will only be the first unit of what it is expected will be a very considerable fleet. The European war and the attendant tying up of shipping has resulted in a very considerable amount of American tonnage, formerly engaged in the coastwise trade, taking over-seas cargo. A number of ships have been purchased recently, the new owners intending to send them abroad to secure the high freight rates now ruling. It is not the intention of the Clinchfield Navigation Co., Inc., to engage in such business, but to employ its vessels in coal carrying and the development of the water-borne coal movement from Charleston, S. C. It may be said that the forming of the Clinchfield Navigation Co., Inc., is but one of a number of steps which the Clinchfield Coal Corporation is taking towards enlarging the market for the products of its mines, which are now being developed rapidly to a much greater tonnage basis.

Optimistic Notes Reported.

The Hickman Wagon Factory, Hickman, Ky., resumes operations after several months' idleness.

One hundred coke ovens fired by Austen Coal & Coke Co., Austen, W. Va.

Movement begins of 75,000 tons of pig-iron from the Birmingham district for European points.

Mandle clay mines near Puyyear, Tenn., reopened after suspension of work during the winter.

Clarksburg (W. Va.) works of the Hazle Atlas Glass Co. to go on full time within a week.

Iron-ore mines at Attalla, Ala., working to full capacity.

Third furnace of Gulf State Steel Co. at Gadsden, Ala., put in blast.

Southern Creosoting Co., Slidell, La., awarded contract for 2,000,000 feet of creosoted lumber for railroad bridge at Memphis, Tenn.

Wheland Machine Co. of Chattanooga, Tenn., given a large order from Cuba.

P. R. Morrison, secretary Alto Face Brick Co., Rome, Ga., writes to the MANUFACTURERS RECORD:

"Our company began operations the latter part of June last year, and while we were accumulating a stock of medium-priced buff, gray and old gold mottle-face brick the war so greatly decreased the demand for brick that we were forced to shut down. However, our medium-priced brick in these shades has met with favor in this territory, and we are today beginning operations on full time."

The Cotton Movement.

According to the report of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, the amount of cotton brought into sight during the first seven months of the season was 11,896,418 bales, a decrease under the same period last year of 1,256,126 bales. The exports were 5,285,297 bales, a decrease of 1,835,803 bales. The takings were, by Northern spinners, 1,922,871 bales, a decrease of 242,360 bales; by Southern spinners, 2,220,611 bales, a decrease of 230,824 bales. For 217 days of the season the amount brought into sight was 12,161,788 bales, a decrease of 1,116,696 bales. The exports were 5,533,195 bales, a decrease of 1,749,684 bales. The takings were, by Northern spinners, 1,928,811 bales, a decrease of 271,158 bales; by Southern spinners, 2,268,307 bales, a decrease of 227,158 bales.

Passage by the General Assembly of North Carolina of a State-wide fish law is expected to bring about the establishment by the Federal Government of a second fish factory in the State.

A Limit to Indiscriminate Criticism*

By ELBERT H. GARY, Chairman of the United States Steel Corporation.

It is sometimes appropriate and useful to glance at current events for the purpose of selecting a topic for discussion. Recent developments have influenced me to speak briefly at this time concerning the subject of indiscriminate criticism.

In human kind there is an element which is interested in, if indeed, it does not actually enjoy reading or listening to, adverse references to the character or conduct of an individual or association of individuals, and by reason of this fact agencies for the collection and distribution of unfavorable comments have become more or less popular. A questionable kind of success is often realized by the individual or the publication whose energies are devoted to frequent and furious personal attack against the standing or the action of others. The means of communication at the present time are such that a published expression derogatory to the character or attitude of one who may be connected with a subject or institution of prominence is, within a brief space of time, distributed practically throughout the entire world, and therefore those who seek notoriety at the expense of others are more disposed to indulge in uncomplimentary language than they would be if it was expected their statements would be read by only a few. The ordinary reader of the daily press seldom overlooks or neglects to read unfavorable criticisms. And so there is a class of men who for selfish reasons take advantage of this peculiar trait in human nature to discover in one way or another something that may be prejudicial to a cause, a community or a nation in order to have it published or in some way spread broadcast for the delectation of those who may be entertained by reading it. These efforts sometimes take the form of individual work, investigations by committees or commissions created by the legislatures or congresses, or, in exceptional cases, even by judicial branches of government, such as grand juries, with their inquisitorial power. Oftentimes the investigators are not only utterly incompetent, but they are prejudiced and willfully repress many of the pertinent and material facts. They seek to produce for circulation and criticism only information calculated to bring reproach upon the persons involved in the inquiry.

No one is exempt from these criticisms. They extend from the lowest individual even to the nation. If one is supposed to be wealthy these questions are asked: What is the amount of his riches? How did he get them? What is he doing with them, and what are his objects in life?

If one is supposed to be poor: Is he really poor? Is it necessary? Is he making the most of what he receives?

Is the employer of labor treating his employees fairly and decently, or does his financial success depend largely upon inconsiderate treatment of his men?

Is the employee faithful and honest and working for the interest of his employer, or is he disloyal, arbitrary and lawless?

The relief organizations and foundations: Where did they get their money? What percentage are they distributing to the needy and to the officials, respectively? What is their real purpose? Is it to benefit mankind or is it intended to use the power of money to corrupt the courts or legislatures or to improperly influence the general public by a vicious and unjustifiable propaganda?

What are the motives which control governmental administrations? Do those in power seek to protect and promote the rights of all the citizens, or do they often act with personal and political advancement as the chief end in view?

Are members of the legislative departments, in the introduction or passage of laws, honestly endeavoring to promote the public weal? Or are they frequently influenced by a desire to promote a political party? Even in impeachments, have not worthy individuals been crucified and the guilty permitted to escape as the result of a partisan vote?

The limits of these references may be indefinitely extended. Most important to consider is the criticism of the individual. Whatever his profession or avoca-

tion, especially if he is successful or for any reason becomes prominent, he may be subjected to criticism, and often undeserved. A man sometimes feels that he will be condemned if he does and condemned if he does not. He may occupy a position between separate interests which conflict, and, with a disposition to act impartially, he is blamed by both. If he is associated with the management of corporate interests, the stockholder not infrequently claims too little is paid to him and too much to the employee, and the latter complains he is unfairly treated in order to favor the former. And in many cases the same question arises where the pecuniary interests of the holders of corporation securities are not always the same as those of others who may be affected by the decisions and action of the management. And then to make matters worse, governmental agencies sometimes interfere with the claim that the corporation has benefited one interest to the prejudice of another.

There is time now only to say that this is without question an epoch of indiscriminate criticism. Much is justified; probably more is without warrant. In the last decade there has been more abuse, more slander, more personal attack and more demagoguery, and, as a consequence, more injury to the general public than ever before. The whole country, from an economic and a moral standpoint, has been greatly injured by agitation, investigation and attack, which were inspired by improper, if not dishonest, motives.

No complaint of criticism, agitation or investigation can reasonably be made, provided the facts call for it. On the contrary, the circle of those who may be included should be and will be enlarged.

Circumstances seem to show that we are approaching the time when the investigator will be investigated; when the criticiser will be criticised; when committees and commissions will be brought before other similar bodies for judgment. It would be interesting to the public if it could be informed of the real motives which have prompted some of the official inquiries and if it could learn of the unfair methods which have been sometimes pursued, and if it should know the amount of governmental funds which have been appropriated for the use of committees and how they have been disbursed; in fact, if some of those participating could be subjected to the same scrutiny which they have exercised.

But connected with the subject of criticism there is an agreeable truth which is worthy of particular emphasis. There are at present many able, honest and fearless editorial writers who are in the habit of discussing the important questions of the day; who have the ability to write forcibly and logically, and therefore convincingly; who are conscientious in their treatment of all questions strictly on their merit, and who pass judgment with no thought of fear or favor. They discriminate between the good and the bad, the reasonable and the unreasonable. These writers are having a marked influence. They are more popular than ever before, for the public is quite disposed to be fair and impartial, and the number is increasing.

The general attitude of the great newspapers of today is fair and just. They influence and are influenced by the general public. They reflect the general sentiment. This is most important in considering the future welfare of this country.

If the picture which I have imperfectly drawn is a true one, then the course before us, which leads to prosperity, success and happiness, is plain and we will pursue it. We must conduct affairs in our charge with the expectation that we will be criticised. We must square our conduct with principles we believe to be right and just to all concerned. And what is true of us who are present is just as true of all others. High position or low, power or weakness, wealth or poverty shall be no ground for immunity. From the greatest nation to the lowest subject, all are to be treated alike and judgment rendered accordingly. We must accord proper treatment to all, and we will command the same for ourselves.

Twelve ships were loading cotton at Galveston one day last week. Up to March 4 there were exported from Galveston 2,765,478 bales since July 1.

*Remarks at the alumni dinner of the University of Pittsburgh.

ALABAMA POWER CO.

Companies Merged and \$5,000,000 Betterments Planned for Cities.

It is stated that the Alabama Power Co., Birmingham, has merged (under its corporate title) a number of companies which have been under its management for several years, and that the management's plans contemplate the early investment of \$2,000,000 additional capital, with provision for an additional \$3,000,000. The companies merged include the following: Huntsville Railway, Light & Power Co., Huntsville; Decatur Light, Power & Fuel Co., Decatur; Anniston Electric & Gas Co., Anniston; Etowah Light & Power Co., Gadsden; Leeds Light & Power Co., Leeds; Pell City Light & Power Co., Pell City. The betterments contemplated include overhauling and modernizing the street railway, power and lighting property at Decatur, providing adequate gas facilities and improving the railway property at Anniston, improving the electric property at Gadsden, improving the electric plant at Attalla, providing supply of electricity for Riverside and other small cities between Birmingham and Anniston, generally extending the electrical transmission system, etc. Report states that James Mitchell of New York, president of the Alabama Traction, Light & Power Co., will now assume the presidency of the Alabama Power Co. and that Frank S. Washburn of Nashville, former president of the Alabama Power Co., becomes chairman of the board of directors of this company.

Streets and Sewers Costing \$350,000.

About \$350,000 is being expended for street and sewer work, for which contracts have been awarded at Miami, Fla. Construction is progressing, and will be completed during the next several months. The contracts may be briefly outlined as follows: John J. Quinn, Bedford, Ind., 18 miles of sewers; Southern Asphalt & Construction Co., Birmingham, Ala., and L. G. Proudfoot, Chicago, about \$250,000 worth of asphalt pavements; Biscayne Construction Co., Miami, about \$20,000 worth of sidewalks; about 10 other small contracts for paving and sewers.

Barytes Developments Near Louisville.

Demands for barytes because of the decreased receipt of supplies from Europe have resulted in plans being formulated for the development of barytes deposits on land located several miles from Louisville, Ky. The Kentucky Barytes Co. of Louisville is preparing to begin active mining, and E. C. Young of Charleston, W. Va., has leased and will develop barytes in the same locality. Another development will be undertaken by James Eastin, Weiman & Co. of Pittsburgh, Pa.

Terminals for Port Bolivar.

Paul T. Bruyere, engineer, 50 Church street, New York, writes to the MANUFACTURERS RECORD as follows: "A terminal development is contemplated in Galveston Bay harbor on the property (500 acres) for which I recently acquired optional title. The site is at Port Bolivar, a subport of Galveston, three miles across the bay. The idea is to follow the plans and principles under which the Bush Terminal Co. of Brooklyn was developed. Construction plans are not yet available, nor is information regarding the sources through which the enterprise will be handled."

Elkhorn Mining Corporation.

Fourteen mines have been opened and are being operated by the Elkhorn Mining Corporation, offices in the Bankers' Trust Building, New York. The company has under lease about 25,000 acres of Eastern Kentucky coal land and plants with equipment for an eventual annual output of 3,000,000 tons of coal. This corporation is capitalized at \$6,750,000, and Clarence W. Watson of New York and Fairmont, W. Va., is its president.

The police jury of East Feliciana parish, Louisiana, decided to buy a 30-horse-power traction road machine and two graders.

Good Roads and Streets**SOUTHERN HIGHWAY ACTIVITIES.****Details of Week's Progress in Improvements in City and Country.**

Further details of road and street undertakings and bond issues mentioned below are given under the headings Construction Department and New Securities, published elsewhere in this issue.

The MANUFACTURERS RECORD invites from its readers information about road and street work projected or under way, photographs of good roads and discussions of matters pertaining to the betterment of the highways of the South.

Bonds Voted.

Belton, Tex.—Bell County Road District No. 16 voted \$4000 bonds to construct roads.

Bryan, Tex.—Brazos county, Bryan District, voted \$4000 bonds to construct roads.

Largo, Fla.—City voted \$11,000 bonds for street paving.

Lovington, Va.—Nelson county, Lovington District, voted \$35,000 bonds to construct eight miles of macadamized road.

Barbourville, Ky.—Knox county voted \$200,000 bonds to construct roads.

Oxford, Miss.—Lafayette county authorized \$10,000 bonds to construct roads in Road District No. 3.

Sumter, S. C.—Sumter county will issue \$10,000 road-improvement bonds.

Bonds to Be Voted.

Camden, Ala.—Wilcox county votes March 20 on \$25,000 bonds to construct roads, etc.

Charleston, W. Va.—Kanawha county votes April 24 on \$315,000 bonds to construct about 15 miles of road.

Jennings, La.—Jefferson parish votes in April on \$400,000 bonds to construct roads.

La Grange, Ky.—Oldham county votes April 20 on \$100,000 bonds to improve roads.

Maysville, Ky.—Mason county votes May 15 on \$200,000 bonds to rebuild four main turnpikes.

Miami, Fla.—Dade county votes April 20 on \$100,000 bonds to construct portion of Ingraham highway.

Sherman, Tex.—Grayson county votes April 10 on \$900,000 bonds to build 200 miles of macadam and gravel roads.

Contracts Awarded.

Ashboro, N. C.—Randolph county awarded contract to construct 23 miles of sand-clay road.

Clarksdale, Miss.—Coahoma county awarded contract to construct 3½ miles of gravel roads.

Clarksdale, Miss.—City awarded contract to gravel three miles of streets.

Huntsville, Ala.—Madison county awarded \$6540 contracts for road construction.

Knoxville, Tenn.—Knox county awarded \$14,000 contracts for road construction.

Louisville, Ky.—City awarded \$8500 contract to pave street with vitrified blocks.

Mansfield, La.—City awarded contract to construct 4½ miles of concrete sidewalk.

Miami, Fla.—City awarded \$7843 contracts for street paving.

Richmond, Va.—Henrico county awarded \$36,650.76 contracts for road improvements.

Vicksburg, Miss.—Warren county awarded \$22,526.50 contract to construct 5½ miles of novaculite road.

Contracts to Be Awarded.

Anniston, Ala.—Calhoun county receives bids until April 7 to improve road; expend \$4616.26.

Baltimore, Md.—City will construct cement footways around various city buildings; 64,000 square feet.

Betterton, Md.—Town will construct about 30,000 or 40,000 square feet of cement and concrete roads and sidewalks.

Charleston, W. Va.—City receives bids until March 24 to curb and pave 15 streets, containing about 40,700 feet of curb and 71,640 square yards of paving.

Columbus, Miss.—Lowndes County Good Roads District No. 2 invites bids until March 23 to furnish material and improve 22 miles of roads, clay and sand to be used, with surfacing of novaculite.

Fort Payne, Ala.—De Kalb county receives bids until April 9 to grade, drain and surface with chert part of road; expend \$7116.26.

Hagerstown, Md.—Washington county will construct 15 miles of road, to cost \$5000 per mile.

Lafayette, Ala.—Chambers county receives bids until March 25 to grade and drain about five miles of road.

Madisonville, Tenn.—City receives bids until March 20 to grade and construct concrete sidewalks for about 4000 linear feet.

Park, R. Station Knoxville, Tenn.—City will pave about two miles of streets.

Plaquemine, La.—Iberville parish will construct about 50 miles of gravel roads.

Pulaski, Va.—City asks bids until March 20 to build about seven miles of macadam and concrete streets.

Rockville, Md.—Montgomery county receives bids until March 23 to construct 3.25 miles of State-aid highway.

Smithland, Ky.—Livingston county will construct roads costing \$24,000.

Tavares, Fla.—Lake county will construct roads; 1,001,046 linear feet roadway, 329,630 cubic yards excavation, 1,147,610 square yards of pavement, etc.

Waycross, Ga.—City receives bids until March 16 to construct 11,000 square yards of brick paving on sand foundation.

Washington, D. C.—City receives bids until March 15 for 30,000 cubic yards of grading.

CHICAGO—MIAMI HIGHWAY.**Wide Interest in the April Conference of Governors at Chattanooga.**

Enthusiastic reports of work actually commenced on the Dixie highway, or of bonds which are to be issued within the next 30 or 60 days, of big delegations which will be sent to Chattanooga and encouraging letters from some of the most prominent men of the country are coming from practically every community on the route of proposed highway into the office of the executive committee of the Dixie highway meeting of the Governors of Illinois, Indiana, Kentucky, Tennessee, Georgia and Florida, to be held at Chattanooga April 3. These reports and letters indicate a determination that the highway shall become a reality in the near future.

As an example of this determination of the counties bidding for the routing of the highway, Fentress county, located in the remote mountain section of Tennessee, through its county officials guaranteed their county would issue \$165,000 worth of bonds for the exclusive purpose of building 30 miles of road. They brought with them to Chattanooga a delegation from the adjoining counties as proof that these counties also would do their part.

Carl G. Fisher, who, with W. S. Gilbreath of the Hoosier Motor Club of Indianapolis, is responsible for the suggestion of the North-to-South highway, has advised the committee that Dade county, Florida, has called an election to vote on a bond issue to surface its stretch of 60 miles of the Dixie highway between Miami and Palm Beach with asphalt. Counties in Florida, Georgia, Tennessee and Kentucky are vying with each other in being the first to begin actual work on the Dixie highway.

General Coleman du Pont of Wilmington, Del., who is convalescing from a recent serious operation, is arranging to come from California to be present at the Governors' Conference. President Fairfax Harrison of the Southern Railway and of the American Railway Association; Vice-President Mapother of the Louisville & Nashville Railroad, President John Howe Peyton of the Nashville, Chattanooga & St. Louis Railroad, A. G. Batchelder, chairman of the executive board of the American Automobile Association; A. B. Pardington, vice-president of the Lincoln Highway Association, and Harry M. Jewett of Detroit are a few of the men of prominence who are planning to be in Chattanooga for the conference, and Secretary V. D. L. Robinson of the Chattanooga Automobile Club writes to the MANUFACTURERS RECORD:

"It is believed by business men and financiers who have made a detailed study of the project and have been made acquainted with the interest and the momentum which the movement has gathered that the progress of

the realization of a through connected highway from Chicago to Miami will be rapid. They believe that the Dixie highway will be placed in good passable condition for the use of the tourists throughout its entire length before another winter. That several stretches of this road in the very near future will be of permanent construction, either of concrete or of some other hard surface, is the confident expectation of men who are not inclined to be led away by any visionary schemes. They base their opinion on the rapidly-growing sentiment throughout the entire South in favor of building permanent all-year-round roads as representing the true economy in road building and maintenance."

State-Aid Roads.

More than \$200,000,000 of State appropriations have been expended to January 1, 1915, and an approximate total of 31,000 miles of surfaced highways constructed under State supervision since the inauguration of the policy known as "State aid," according to the Good Roads Yearbook for 1915, to be issued in March by the American Highway Association from its Washington office. Only seven States, namely, Florida, Georgia, Indiana, Mississippi, South Carolina, Tennessee and Texas have no form of State highway department whatever, although Georgia grants aid to the counties for road improvement by lending the services of the entire male State convict force. Legislatures now in session are devoting much attention to road legislation, and unquestionably several new highway departments will result. North Carolina will probably establish an independent highway department in lieu of the work now done by the State Geological Survey relating to highways.

New Jersey in 1891 was the pioneer State in providing State aid for public highways. Massachusetts and Connecticut adopted the policy shortly after, but only during the past 10 years has the State-aid policy been in effect on a considerable scale. About 5000 miles of State highways were completed in 1913 and about 6000 miles in 1914, so that the past two years have been responsible for more than a third of the entire State highway mileage. The State highways in America now exceed by 6000 miles the national road system of France.

To have State highway departments placed under non-partisan, efficient control; skilled supervision required in all construction work; a proper classification of highways to insure intelligent distribution of improvements; an adequate provision for maintenance of highways from the day of their completion—these are among the objects for which the American Highway Association is waging a vigorous campaign.

Road Bonds for \$600,000.

Two large road bond issues were voted during the week. One vote was by Bryan District of Brazos county, Texas, which voted \$400,000 bonds for road construction, the County Commissioners (offices at Byran) to make early arrangements for issuing the bonds and inviting bids for road construction. The other vote was by Knox county, Kentucky, and calls for \$200,000 bonds to build roads. Knox county's commissioners are at Barbourville, Ky., and will soon arrange to issue the bonds, to be followed by inviting proposals for road construction.

For Lake County, Florida.

Plans for highway construction in Lake county, Florida, include a roadway 1,091,046 feet long, and the work will include 1,146,610 square yards of pavement, 329,630 cubic yards of excavation, etc. Proposals will be received until April 15 by Lake County Commissioners, Tavares, Fla., plans being on file with the commissioners, and with the engineer in charge, the J. B. McCrary Company, Atlanta, Ga.

Paving Costing About \$1,400,000.

A recent report of paving improvements at Tampa, Fla., is of interest. It states that since June, 1910, the city has expended \$1,078,242.82 for street paving, and now has under contract paving to the amount of \$328,136.98. Details of these improvements have been presented in the MANUFACTURERS RECORD from time to time as they were decided upon.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

BIG COAL TRAFFIC SECURED.

John D. Rockefeller's Underwriting of Consolidation Bonds Benefits Western Maryland.

The underwriting of \$7,000,000 of 7 per cent. two-year convertible debenture bonds of the Consolidation Coal Co. by John D. Rockefeller, according to the Wall Street Journal of New York, has resulted in influencing the shipment of at least a large part of the output of the Maryland mines to the Western Maryland Railway, in which Mr. Rockefeller has invested large sums.

Coupled with this statement comes a report from Cumberland, Md., saying that the Cumberland & Pennsylvania Railroad, of which J. H. Wheelwright, president of the Consolidation Coal Co., is also chief executive, has already begun to turn over to the Western Maryland long trains of loaded coal cars daily for transportation to Baltimore and other points. Furthermore, the railroad company is preparing to handle an increased tonnage from the mines. There is also contemplated, it is stated, the construction of an extension of the Western Maryland in Somerset county, Pennsylvania, to get out the product of other mines over its lines.

When the debenture bonds mature, two years hence, it will be possible for them to be converted into stock which will, according to the Journal, give Mr. Rockefeller \$8,000,000 of the coal company's stock and besides there is a two years' option on large blocks of the shares which he may exercise if he chooses. The authorized capital stock is \$31,190,500, of which \$25,000,000 is outstanding, the remainder being held in the treasury to secure another issue of convertible bonds dated February 1, 1913.

MISSOURI PACIFIC CONTROL.

A Bankers' Syndicate Succeeds George J. Gould in the Big System.

The annual election of the Missouri Pacific Railway Co. this week at St. Louis was productive of important changes in the directorate. George Gould, Howard Gould and Kingdon Gould were not re-elected, and this transfers control of the system to other interests. The new directors are Edward A. Faust, Wm. H. Lee and E. J. Pearson of St. Louis, Nicholas F. Brady, Newcomb Carlton, A. J. Hemphill, Cornelius Vanderbilt and W. H. Williams of New York. The directors re-elected are Benj. F. Bush, Edgar L. Marston, E. G. Merrill, Finley J. Shepard and R. Lancaster Williams, the latter of Baltimore. It is stated that Mr. Pearson will be succeeded shortly on the board by M. C. Weld, as soon as the latter qualifies. Besides the several members of the Gould family mentioned, other directors on the old board who were not re-elected are James Speyer, Edward D. Adams, J. G. Metcalfe, E. T. Jeffery and S. F. Pryor. Mr. Bush was elected chairman of the new board of directors and chairman of the executive committee, as well as president. In New York it is expected that Kuhn, Loeb & Co. will head the syndicate of bankers who will now control Missouri Pacific affairs, and the firm was represented at the stockholders' meeting by Otto H. Kahn, the Guaranty Trust Co. being represented by A. J. Hemphill, who is a member of the Missouri Pacific board.

Clinchfield Railway Expanding.

In connection with the announcement of an offering of \$1,200,000 of 6 per cent. two-year convertible notes of the Clinchfield Coal Corporation by Blair & Co. in New York, it is stated that the extension of the Clinchfield Railway from Dante, Va., to Elkhorn City, Ky., 35½ miles, will be put in operation some time in April. As heretofore published, the track is completed but ballasting remains to be finished.

It is further said that a reciprocal traffic agreement

has been entered into with the Chesapeake & Ohio Railway, with which the Clinchfield connects at Elkhorn City. This is expected to develop important traffic over the new line, which will be a short and direct route from the middle West into the Piedmont country and to Florida. The new Clinchfield extension cost approximately \$5,500,000 complete, or \$150,000 per mile, the construction being unusually heavy, but of the most substantial character, with favorable grades and alignment.

The Clinchfield Railway is controlled by the Clinchfield Corporation, which controls in turn about 300,000 acres of coal land in Virginia. It was for the purpose of tapping a new section of this field as well as to provide for a northern outlet that the extension was projected. The Louisville & Nashville is also contemplating building an extension to Elkhorn City to connect with the Clinchfield.

Ambitious plans are under way by the management for developing these coal fields and for reaching new markets. At Charleston, S. C., reached over the Southern Railway and also over the Seaboard Air Line under traffic arrangements, the Clinchfield is constructing one of the most modern and extensive coal-handling docks and terminals on the Atlantic coast.

In addition, the "Clinchfield Navigation Co." has been formed to purchase or have built a fleet of vessels to ply in and out of Charleston in the coastwise trade. The first boat of the fleet has been purchased at Ashtabula, O., at a cost of \$250,000, and will be delivered at Charleston about May 1. It has a capacity of 3000 tons. Heretofore the Clinchfield has had to charter vessels in its trade between Atlantic and Gulf ports.

NEW TERMINAL AT SAN ANTONIO.

\$1,000,000 to Be Spent for Freight and Passenger Depots, Yards, Warehouse, Etc.

The San Antonio Belt & Terminal Co., San Antonio, Tex., has filed deeds there to the right of way, yards and station site for the proposed new terminal of the Missouri, Kansas & Texas Railway, negotiations for which have been in progress for a year or two. The passenger station is to be erected at the corner of Durango and South Flores streets, within two blocks of the city hall and immediately west of this, at Durango and South Laredo streets, will be built a freight station, a warehouse and other facilities. The land, it is stated, cost about \$500,000, and more than \$1,000,000 will be spent for the buildings, tracks, etc. Besides 12 acres obtained for the terminal itself, the company has also acquired a right of way about three miles long and varying in width from 60 to 100 feet. The only thing remaining is to obtain the necessary franchise from the city.

Monongahela Valley Traction Co.

At the recent meeting of directors of the Monongahela Valley Traction Co., held at Fairmont, W. Va., James O. Watson, formerly general manager, was made vice-president, and as such will continue in active charge of the road. Smith Hood, general superintendent, was made general manager, and E. Blaine Moore, formerly chief engineer of the Consolidation Coal Co., was made assistant general manager.

These changes were made necessary by reason of necessity of assistance in operation of the company, which has grown in the past six years from a road of 44½ miles to 110 miles of service lines, and further that the fact that Mr. Watson was recently made president of the gas company and will give its operation considerable attention.

In selecting assistance, Mr. Moore was secured for the reason that mileage of the company is rapidly growing, and it is anticipated that with the close of the present war an era of prosperity will result which will not only make it possible but necessary to construct considerable additional mileage in the Monongahela Valley, the growth of which has received an impetus by reason of the construction of the Pittsburgh & Lake Erie into Fairmont, the development of the field is practically in its infancy. The addition of this road should mean considerable additional coal tonnage, resulting in new towns and further street-car extensions.

The traction company has just completed the installa-

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tion of a large central gas engine power plant at Hutchinson, halfway between Fairmont and Clarksburg. The old plant at Jayenne will be placed in first-class condition and held for emergency service and further extensions of the road.

ANOTHER EVERGLADES RAILROAD.

Contract for Direct Line From West Palm Beach to Heart of Region.

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The Palm Beach & Everglades Railroad Co., at its annual meeting recently in West Palm Beach, Fla., awarded the contract for the construction of its line to the Everglades Construction Co. for \$975,000, according to a report from there, which also says that under the agreement the road must be finished by March 1 of next year. The line proposed is from West Palm Beach to and around to the southward of Lake Okeechobee, and thence northwest to Lake Hicpochee, a total of about 75 miles. A site for a terminal at West Palm Beach, which was donated, was accepted.

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It is further stated that the construction bonds were underwritten by E. B. Lewis of Chicago to the amount of \$1,250,000; that T. T. Reese was elected treasurer, and that the Farmers' Bank & Trust Co. of West Palm Beach, of which Mr. Reese is president, was made the depository of the railroad. Awarding of the subcontracts for the work will, it is said, be completed within a week or ten days.

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Charles H. Baker of New York is president of the road, and James A. Moore of Miami, Fla., is general manager; H. C. Geer of West Palm Beach is vice-president, and W. H. Da Camara of the same place is secretary. Alton B. Parker of New York is now named as one of the directors, also Paul T. Brady and Mr. Lewis.

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The Flint River Railroad & Navigation Co. proposes to build a line from Hawkinsville to Albany, Ga., 80 miles, via Unadilla, Byromville and Bakersfield, traversing country which ranges in character from level to rolling. J. S. Morton, general manager, secretary and treasurer, at Byromville, says that all material has been bought. There will be three bridges, one of iron and two of wood. Connection will be made at Hawkinsville with the Southern Railway, Wrightsville & Tennille Railroad, Hawkinsville & Florida Southern and Hawkinsville & Western line. At Albany connection will be made with the Atlantic Coast Line, Central of Georgia, Georgia Northern, Georgia Southwestern & Gulf and Seaboard Air Line railroads. At Unadilla the Georgia Southern & Florida Railway will be intersected and at Byromville the Atlanta, Birmingham & Atlantic Railway.

The other officers include J. M. Sumner, president, and E. E. Crooks, vice-president, both of Akron, O. Washington Baker of Byromville is also a director.

New Equipment, Etc.

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Public Belt Railroad of New Orleans will purchase 6 more locomotives in connection with the extension to the cotton warehouses of the Dock Board.

Chesapeake & Ohio Railway has ordered 800 tons of bridge steel from the McClintic-Marshall Construction Co. of Pittsburgh.

Missouri, Kansas & Texas Railway is reported in the market for 40 locomotives, instead of 30, as previously noted.

Baltimore city has ordered about \$10,000 worth of rails from the Maryland Steel Co., Sparrows Point, for its belt line on Key Highway.

Pennsylvania Railroad has ordered 2000 tons of rails from the Illinois Steel Co., Chicago.

Illinois Central Railroad has ordered 25,000 tons of rails from the Algoma Steel Corporation, Sault Ste. Marie, Ontario, Canada.

Illinois Traction Co. has ordered 50 electric cars from the Haskell & Barker Car Co., Michigan City, Ind.

The Scotland Crate Co. of Laurinburg, N. C., has begun operations, and will manufacture crates for the growers of asparagus and cantaloupes in Scotland county.

TEXTILES

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

Exhibiting Southern Cotton Goods.

Under the auspices of the American Cotton Manufacturers' Association there was held last week at Augusta, Ga., an exhibit ranging from cotton on the stalk to the dyed, finished product and illustrating the various processes of handling the staple from the field through the factory. In connection with the exhibit, which was designed to lead the American people to an appreciation of the value of American-made cotton, an address was made by President T. I. Hickman of the American Cotton Manufacturers' Association, in the course of which he said:

"While this exhibit is splendid, it by no means covers the tremendous field of operations in which the various mills in our association are engaged. We exhibit none, comparatively speaking, of the raw material; that is, goods in the gray. We have only secured samples of the finished products. Millions upon millions of yards of gray goods are manufactured and go into active use which will never be seen by you, but every yard of this goods has its purpose.

"We appeal to you today—in your patriotism and in your pocketbooks. We do not ask you to sacrifice either comfort or beauty. We do not ask the men, in these cold March days, to dress themselves in cotton duck suits, but we do ask them to use the cotton goods in the summer time, when it is so much more comfortable and healthful, and on which they will save large sums of money as compared to suits made of woolen or linen. This same applies to goods which are made for women's wear, as well as for household uses. What could be nicer than the display we are making here today of table damask, cotton sheets and pillow cases, blankets and the thousand and one articles for household purposes—and all at just about one-third the cost of articles made of other materials than cotton?

"The uniforms which we are exhibiting here today on living models—khaki, corduroy and other materials—cost at least one-third less than serge (out of which these uniforms have heretofore been made), are much more sanitary, and at the same time very durable. A piece of khaki cloth seldom wears out, except after the very roughest usage.

"As to the beauty of the materials worn by the ladies, I leave all this to you to judge for yourselves. You could not get any more attractive fabrics than these are, and, while they might not sound as rich as silk or look as beautiful as lace, they are quite as comfortable and equally attractive.

"The Americans are absolutely the most self-sustaining people in the world. If they would stand unitedly by their own products we could build a wall around these United States and be independent of the world.

"The Lord Almighty has given us the cotton-growing land of the world. England, France and Germany have spent countless millions of dollars in attempts to grow cotton in other places, but our soil is peculiarly adapted to it, and so far no nation of the world has been able to successfully compete with us. It is true they make some cotton—probably one-fourth as much as is made in the United States—but in the meantime we can keep increasing our production much faster than they can in the same proportion.

"Now we come before you today not as mendicants, but as representing 400,000 working people whose daily bread depends upon their daily toil. There are also 10,000,000 other people, directly and indirectly, dependent upon the successful operation of the cotton mills for their incomes.

"We do not ask any favors, but we do ask you to inspect our fabrics, and to adopt the use of them—to ignore importations and to buy goods made in America. This will enable us to take care of those who are depending upon us—this vast army of people, which, passing

this hotel in a column of fours, would probably take a solid week to pass these doors. Help us to provide for their needs by giving them work, and at the same time saving yourselves tremendous amounts of money and making yourselves as comfortable as you could possibly in wearing apparel of any other material."

Mt. Vernon-Woodberry Mills.

The Mt. Vernon-Woodberry Mills, Baltimore, has issued a statement of earnings from January 3 to January 30, and shows an increase of net income over the preceding month. The December income was about \$52,000 and the January income was about \$56,500. Under the reorganization plan the net earnings must be at least \$36,500 to provide for the 7 per cent. \$6,250,000 preferred stock, and the January statement shows that this requirement is being met. The company is operating at about 50 per cent. of capacity, and it is evident that increases will bring the enterprise net earnings largely in excess of interest requirements. About \$68,500 was the net profit from sales during January. The statement filed by the Continental Trust Co., operating as trustee for the first mortgage bondholders, is as follows:

Net sales, \$348,047.88; cost of goods sold, \$259,021.05; gross profit from sales, \$89,026.83; selling expenses, \$13,516.04; selling profit, \$75,510.79; general expenses, \$6993.41; net profit from sales, \$68,517.38; income credits, \$2592; gross income, \$71,109.38; charges for taxes, insurance, etc., \$14,604.14; net income, \$56,505.24.

Savona Mill for Weaving.

The Savona Manufacturing Co., Charlotte, N. C., has plans and specifications by Lockwood, Greene & Co., Boston and Atlanta, for constructing its mill announced last week. This building will be 200 feet long by 128 feet wide, and one story high, of standard mill construction, the Fiske-Carter Construction Co. of Charlotte, Greenville, S. C., and Fitchburg, Mass., having the contract. It will be equipped with electric power and machinery for weaving towels, napkins, etc.

To Weave Woolen Blankets.

With a capital stock of \$25,000, the Philippi (W. Va.) Woolen Mills Co. has been incorporated by W. L. Fordyce, Albert G. Jenkins, John A. White, L. D. Gall and W. D. Corder. This company will establish a mill for manufacturing woolen blankets, the first installation to be a 10-loom equipment. Mr. Fordyce was previously mentioned as planning to organize a woolen mill company.

Seeking Silk Mill Location.

The A. G. Turner Company, silk throwsters, Williamantic, Conn., is interested in finding a location for a plant where cheap power and female labor are to be readily obtained within a radius of 600 miles of New York city. The company's present plant has 11,000 spindles, using 225 horse-power and 100 employees.

Textile Notes.

H. W. Fairbanks, architect and engineer for textile mills, Dallas, Tex., is reported interested with Muskogee (Okla.) capitalists in a plan to build a cotton mill at Muskogee.

Business Men's Club, Memphis, Tenn., plans organization of a \$500,000 company to build a cotton mill.

Bibb Manufacturing Co., Macon, Ga., has let contract to the Gallivan Building Co., Greenville, S. C., for the erection of an additional building to cost about \$20,000. It will invest about \$40,000 for the necessary machinery, etc., for this enlargement, recently mentioned.

W. L. Fordyce and associates have incorporated the Philippi Woolen Mills Co., Philippi, W. Va., with a capital stock of \$25,000. Mr. Fordyce was previously mentioned as planning to establish a woolen mill, probably starting with a 10-loom equipment for weaving blankets.

Construction Department

IN ORDER TO FOLLOW UP

Properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be written on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will generally be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur, as our reports are often published before new companies are known and before they have any established office for the receipt of mail.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year.

All advertising contracts in the Manufacturers Record for three months or longer include a subscription to the Daily Bulletin for the contract period, as well as a subscription to the Manufacturers Record.

BRIDGES, CULVERTS, VIADUCTS

Ala., Camden.—Wilcox county votes Mch. 20 on \$25,000 bonds to construct bridges and roads. J. N. Stanford, Judge of Probate.

Fla., Fort Myers.—Fort Myers, Marco Bay & Miami R. R., W. B. Clay, Ch. Engr., Arcadia, Fla., is reported to construct about 15 mi. of trestle-works, which is to be filled in later; plans also include construction of docks to handle coal and lumber at Marco Bay.

Fla., Jacksonville.—Duval County Comms. will construct bridge across St. John's River at foot of Laura St.

Ga., Hawkinsville.—Flint River R. R. & Navigation Co., J. W. Hawkins, Chief Engr., will construct 1 iron and 2 wooden bridges in connection with 50-mi. railroad to be built from Hawkinsville to Albany, Ga.; all materials purchased.

Ky., Bowling Green.—Warren county, M. H. Crump, Road Engr., let contract Vincennes Bridge Co. at \$6343 to erect superstructure of proposed bridge; 298 ft.; 15 ft. wide; capacity 15-ton roller; stone work contract, for repairing old piers, let to Murphy Bros., Bowling Green.

Ky., Louisville.—Jefferson County Comms. let contract East St. Louis Bridge Co., East St. Louis, Ill., at \$1558.70 to construct 2 bridges on Preston-St. road.

Ky., Madisonville.—Hopkins county plans to vote May 8 on \$300,000 bonds to construct bridges and roads. Address County Comms.

La., Lake Charles.—Calcasieu parish will construct proposed steel highway swing bridge across Black Bayou; bids by Pelice Jury, E. C. House, Clerk, at office Highway Dept., Courthouse, until Apr. 6. (See Machinery Wanted.)

N. C., Durham.—Durham County Comms. will construct 4 steel bridges; cost about \$5000 each; O. W. Childs, Engr. for Federal office of Good Roads, will prepare plans.

Okla., Oilton (not a P. O.).—Boardman Bridge Co. of Oklahoma City has contract to construct steel wagon bridge over Cimarron River; \$27,000 bonds approved.

Tenn., Clinton.—Anderson County Bridge Com., C. J. Sawyer, Chrmn., asks bids until March 25 for bridges previously noted to cost about \$20,000; one each at Moores Ferry, Clinton and Edgemoor; reinforced

concrete or steel structures on concrete piers and abutments. (See Machinery Wanted.)

Tex., Cleburne.—Johnson County Comms. Court let contract Hess & Skinner Engineering Co., Dallas, at \$2876 to construct steel bridge over Nolan River at Chaney Springs.

Tex., Palestine.—City will construct concrete bridge. Address The Mayor.

Va., Doswell.—Hanover and Caroline counties will construct bridge across North Anna River 2½ mi. from Doswell; steel superstructure; bids until Mch. 18; G. P. Coleman, State Highway Engr. (See Machinery Wanted.)

CANNING AND PACKING PLANTS

Ala., Tuscaloosa.—Tuscaloosa County Truckers' Assn. is promoting establishment of \$10,000 cannery.

Ala., Mobile.—Davis Packing Co., capital stock \$50,000, incptd.; A. D. Davis, Pres.; S. L. Callaway, Gen. Mgr.; Albert N. Stokes, Secy.-Treas.

Ark., Bergman.—Swafford & Jones will establish lately-noted cannery; erect 32x52-ft. ordinary construction building; can tomatoes, peaches and beans.

Ark., Highland.—Bert Johnson, Highland; Clymer-Best Sorghum Syrup Co., Fort Smith, Ark., and others interested in plan to establish chain of fruit and vegetable canneries in Southern Arkansas and Oklahoma. (Previously mentioned.)

Ark., Newark.—Newark Canning Co. organized with F. C. Hoyt, Pres.; W. A. Isgrig, Secy., and O. F. Craig, Treas.; will establish cannery. (Lately noted.)

Fla., Live Oak.—Live Oak Canning Co. (W. E. Quarterman and others) will establish lately-noted cannery; rent building; has let contract for machinery costing \$1500; contemplated daily capacity 10,000 cans vegetables and fruits; will apply for charter, capital \$10,000.

Ky., Salt Lick.—T. F. Razor is reported to build cannery with daily capacity 6000 cans; purchased equipment.

Md., Baltimore.—Wm. Schluderberg & Son, 4th and Bank Sts., will receive bids from following contractors on erection of meat storage house on Eastern Ave.: Consolidated Engineering Co., 243 Calvert Bldg.; West Construction Co., Knickerbocker Bldg.;

J. L. Robinson Construction Co., 66 Knickerbocker Bldg.; Jos. Schamberger, 2122 E. Baltimore St.; Fidelity Construction Co., 1709 W. Lexington St.; Deverell, Spencer & Co., 1007 Garrett Bldg.; Henry Rippel, 7 Clay St.; Fred Decker & Son, 1306-1211 E. Biddle St.; Benj. F. Bennett Building Co., 123 S. Howard St.; Chas. L. Stockhausen Co., Marine Bank Bldg.; J. J. Walsh & Son, 1533 Maryland Ave.; Isidor Bucher, 3412 E. Pratt St.; all of Baltimore; building reported to be 2 stories; 4x68 ft.; reinforced concrete and brick; estimated cost \$40,000; plans by C. B. Comstock, Philadelphia, Pa. (Lately noted.)

S. C., Orangeburg.—Fairley Bros. will install canning plant at estimated cost of \$1000. (See Machinery Wanted.)

CLAYWORKING PLANTS

Tex., Austin.—G. E. Richmond, 1407 Congress Ave., states that plant in which he was lately noted interested is that of Oakoal Mfg. Co., which will manufacture "Oakoal" briquets from garbage. (See Miscellaneous Factories.)

COAL MINES AND COKE OVENS

Ala., Brilliant.—Levy Coal Co. organized with Chas. P. Levy, Pres., Birmingham; develop coal mines.

Ky., Sebree.—Company organized with Chas. A. Sine, Pres., Johnston City, Ill.; J. B. Brown, V.-P., Royalton, Ill.; Percy B. Smith, Secy.-Treas., St. Louis, Mo.; acquired coal-mining property.

Ky., Harlan County.—King Harlan Coal Co., capital stock \$100,000, incptd. by Tyler Calhoun, A. L. Childress, Harry Wand and Chas. C. Trabue, all of Nashville, Tenn., and others; reported to develop coal mines in Harlan county.

Ky., Harlan County.—Barnes Fork Coal Co., Lexington, Ky., is reported to have leased 3000 acres coal land (from Kentenia Mining Co., 2 Rector St., New York) for development.

Ky., Krypton, P. O. at Glenn.—Krypton Coal Co. incptd. by Clark Eversole, J. B. Eversole, I. B. Richie and J. A. Collins.

Mo., Deepwater.—James England Coal Co., capital \$4000, incptd. by Jas. and Wm. C. England and Earl Huey.

Va., Pulaski.—Ben French is reported as contemplating development of coal land.

W. Va., Mullens.—Wood-Sullivan Coal Co., capital \$100,000, incptd. by J. C. Sullivan of Mullens, Joe L. Smith and J. E. Toliver of Beckley, W. Va., and others.

W. Va., Mullens.—Mead-Toliver Coal Co., capital \$100,000, incptd. by J. C. Sullivan of Mullens, Dr. J. A. Wood of Sullivan, W. Va.; J. E. Toliver of Beckley, W. Va., and others.

W. Va., Mullens.—Devil's Fork Coal Co., capital \$100,000, incptd. by S. D. Frantz and L. M. Frantz of Mullens, Jas. Collins of Bramwell, W. Va., and others.

CONCRETE AND CEMENT PLANTS

N. C., Wadesboro.—Concrete Blocks, etc.—H. A. McQuary, Box 201, proposes to establish plant for manufacturing concrete blocks, etc.; will install mixers, conveying machinery, etc.; has not purchased equipment. (See Machinery Wanted.)

COTTON COMPRESSES AND GINS

Ala., Hurtsboro.—Buckeye Cotton Oil Co. is reported to install 4 additional gins.

Ala., Denopolis.—John C. Webb & Sons advise further relative to lately-noted rebuilding: Brick warehouse 60x100 ft., brick walls, tin roof, wood floor; boiler-room 20x46 ft., brick, steel roof frame, metal roof; main compress shed 300x300 ft., wood and metal walls, tin roof; compress machinery contracts let; daily capacity 1200 bales cotton; buildings and machinery cost about \$80,000.

Fla., Jacksonville.—Port Comms., Fred Bruce, Ch. Engr., will invite bids to install cotton compress; daily capacity, 1000 to 1200 bales; cost about \$25,000.

Ga., Juliette.—Juliette Milling Co. is reported to purchase and enlarge gin or build plant.

Ga., Lax, P. O. at Ocilla.—Farmers' Gin & Warehouse Co., capital stock \$5000, incptd. by O. N. Harper, E. A. Tapp and J. G. Cross.

COTTONSEED-OIL MILLS

Ark., Pine Bluff.—Valley Oil Co. (lately noted incptd., capital \$83,000), A. H. D. Perkins, Pres. and Mgr., succeeds Bluff City Oil Co.

Tenn., Memphis.—Edward Tilden of Chicago (owner of Shelby County Oil Mill, 460 N. Bellevue Blvd.) will build cottonseed-oil mill; 3 stories; brick and concrete; fire-proof; iron stairway to second floor; steel sags; steel bridge in rear for hoisting crane; plans and specifications prepared; estimated cost \$100,000.

DRAINAGE SYSTEMS

Ark., Osceola.—Comms. Grassy Lake and Tyrone Drainage Dist. No. 9, S. E. Simonson, Chrmn., invite bids until Mch. 24 to construct 21,600 cu. yds. levee embankment near Marked Tree; 600 cu. yds. levee embankment and 9000 cu. yds. of ditch excavation, about 13 mi. southwest of Blytheville, Ark.; 7300 cu. yds. ditch excavation and installation of 62 ft. 12-in. sewer pipe, 50 ft. 18-in. sewer pipe and 198 ft. 24-in. sewer pipe, with concrete bulkheads amounting to 20 cu. yds. at Osceola; furnishing steel for erecting complete, on concrete abutments, 5 steel bridges; Engr., Morgan Engineering Co., Memphis, Tenn. (See Machinery Wanted.)

Fla., Kissimmee.—Taft Drainage Dist. organized; following are supervisors: J. D. Clark, Kissimmee, Pres.; D. B. Sphaler, Taft, Fla.; M. M. Miller, Conley, Fla.; J. E. Harrington, Taft, Secy.; R. H. Ludlam, Engr., Kissimmee; acreage 41,000.

La., Westover.—Bayou Nolan Drainage Dist., W. V. Easton, Secy., West Baton Rouge parish, let contract G. A. McWilliams, Steger Bldg., Chicago, Ill., to excavate about 3½ mi. drainage ditch; about 135,000 cu. yds. removal; to be completed within 5 months.

Ky., McLean County.—J. N. Forgy, Owensboro, Ky. (lately noted as receiving contract to dig 5 mi. ditch), states contract includes 116,000 yds. dirt removal; machinery supplied; canals estimated to cost \$12,777; lands for farming.

La., Gonzales.—New River Drainage Dist. of Ascension parish, Leon Picard, Pres., let contract D. B. Gore Co., Shreveport, La. (main office, Metropolitan Bank Bldg., New Orleans, La.), to construct drainage canals; main ditch about 27 mi. long, 27 ft. wide and 6 ft. deep at upper end, and 65 ft. wide and 15 ft. deep at lower end; fall, about 1 foot to the mile; 1,600,000 yds. dirt; 3 short laterals, 27 to 40 ft. wide, about 290,000 yds. dirt; cost of work about \$175,000; drain 60,000 acres; 30,000 of this now in cane corn, balance being cypress swamp. (Bids previously noted.)

La., White Castle.—White Castle Drainage Dist. let contract W. H. Laws, Plaquemine, to construct drainage canal; \$60,000 bonds voted.

Mo., Edina.—Fabius River Drainage Dist. No. 3 let contract to H. K. Johnson, Kahoka, Mo., at 5.3 cents per cu. yd., to construct drainage canals (bids previously noted) in Scotland, Knox, Clark and Lewis counties; about 500,000 cu. yds. excavation; Harman Engineering Co., Peoria, Ill., Engr.

Tenn., Dresden.—Middle Fork and Spring Creek Drainage Dist., Weakley county, will construct drainage system; Contract No. 1, about 364,700 cu. yds. embankment in north levee, with floating dredge; Contract No. 2, about 543,550 cu. yds. excavation in Spring Creek ditch, 270,615 cu. yds. embankment in south levee and 41,300 cu. yds. embankment in back water levee No. 2, all with floating dredge; Contract No. 3, clearing about 500 acres floodway between levees; Directors, G. T. Mayo, Chrmn., receive bids until April 8; Engr., Morgan Engineering Co., Memphis, Tenn. (See Machinery Wanted.)

Tex., Raywood.—Raywood Drainage Dist. is reported to vote on \$70,000 bonds to construct drainage canals. Address Drainage Comms.

ELECTRIC PLANTS

Ala., Birmingham.—Alabama Power Co. has merged, under its name, companies under its management for several years; these companies include Huntsville Ry., Light & Power Co., Decatur Light, Power & Fuel Co., Anniston Electric & Gas Co., Etowah Light & Power Co., Leeds Light & Power Co. and Pell City Light & Power Co.; plans contemplate early investment of \$2,000,000

additional capital, with provision for additional \$3,000,000; proposes improvements, extensions, etc., at Huntsville, Decatur, Anniston and Gadsden; Jas. Mitchell, New York, Pres. Alabama Traction, Light & Power Co.; assumes presidency of Alabama Power Co.; Frank S. Washburn, Nashville, Tenn., former Pres. Alabama Power Co., becomes Chrmn. of Directors.

Ala., Birmingham.—Continental Power Co., capital stock \$200,000, inctpd.; H. B. Wheelock, Pres.-Treas.; D. E. Manasco, V.-P.; R. H. Wood, Secy.

Ark., Lonoke.—City Council let contract Lonoke Light & Water Co. to install electric street-lighting system.

Fla., Pablo Beach.—City asks bids until March 20 on lately-noted electric light and sewer systems; includes poles, wire, transformers, oil engines, generator, 10,000-gal. steel tank and galvanized iron building; J. B. McCrary Co., Engr., Atlanta, Ga., and Jacksonville, Fla. (See Machinery Wanted.)

Ga., Jefferson.—Jefferson Electric Co., capital stock \$10,000, inctpd. by W. H. Smith, H. T. Hobbie, J. E. Randolph and others.

Mo., Jefferson.—Hagerstown & Frederick Ry., R. Paul Smith, Supt., Frederick, is reported as contemplating extension of electric-light system to Jefferson.

Mo., Cameron.—City, Clarence Staples, Clerk, receives bids until Feb. 16 to construct previously noted improvements to electric-light system; includes 300 H. P. Corliss engine, 250 K. V. A. generator, switchboard, steam piping, steel stack, etc.; Harper & Stiles, Engrs., 911 Grand Ave. Temple, Kansas City, Mo. (See Machinery Wanted.)

Mo., Cowgill.—Cowgill Garage & Light Co., capital \$8000, inctpd. by R. A. Thompson, O. C. Switzer and Otis Lashley.

Mo., Kennett.—City voted to grant new franchise to Kennett Ice & Electric Co.

Mo., Marshall.—City will vote on \$70,000 bonds to construct electric-light and power plant. Address The Mayor.

Okla., Woodward.—City contemplates voting on construction of electric-light system. Address The Mayor.

S. C., Orangeburg.—City is considering \$30,000 bond issue for electric-light plant and water-works. Address The Mayor.

S. C., Westminster.—Town Council issued \$15,000 bonds to improve electric-light plant. Address The Mayor.

Tenn., Gleason.—City votes in April on \$10,000 bonds to construct electric-light plant. Address The Mayor. (Lately noted.)

Tex., Ozona.—Ozona Improvement Co., Frank F. Friend, Mgr., is making lately-noted improvements; has let contract for 60-cycle, 2300-volt 3-phase equipment and crude oil engines; cost about \$4500.

Tex., Vinton.—Vinton Ice, Light & Water Co. organized; is having plans prepared for electric-light and power station, etc. (See Ice and Cold-storage Plants.)

Va., Grundy.—Grundy Light & Power Co., H. M. Johnson, Mgr., will expend \$3000 on lately-noted electric-light plant; develop 100 H. P.; needs materials. (See Machinery Wanted.)

Va., Honaker.—Honaker Public Service Corp., capital stock \$5000, chartered; E. J. Boyd, Pres.; Aaron Russ, Secy.-Treas.

W. Va., Williamson.—Williamson Light & Ice Co. will rebuild electric and ice plant reported burned; will install 200 and 400 K. W. 2200-volt generator and other equipment; has not purchased. (See Machinery Wanted.)

FERTILIZER FACTORIES

Fla., Quincy.—American Sumatra Tobacco Co. is reported to establish fertilizer factory.

FLOUR, FEED AND MEAL MILLS

Ala., Troy.—L. M. Bashinsky and Ewell C. Bassett contemplate establishing feed mill; probable cost \$50,000.

Ark., Gassville.—Joe Whinery of Halltown, Mo., is reported to build 50-bbl. flour mill.

Ga., Rome.—F. S. Isbell of Bowling Green, Ky., will build flour mill.

Okla., Gerty.—Gerty Mill & Elevator Co., capital stock \$5000, inctpd. by J. C. Ingram, T. A. Ogee and C. C. Martin of Gerty and D. M. Roberts of Stuart, Okla.

Va., Kenbridge.—Kenbridge Mfg. Co. is erecting lately-noted mill; L. W. Bridgforth, Pres.; S. B. Watkins, Secy., Treas. and Mgr.; erect 24x30x30-ft. buildings; cost \$1500; day labor; purchased machinery; products, flour, meal and feeds.

FOUNDRY AND MACHINE PLANTS

Ala., Decatur.—Frogs and Switches.—Decatur Car Wheel Co. will invest \$200,000 to build addition for manufacturing frogs and switches; now preparing plans for construction.

Ga., Valdosta.—Machinery, etc.—Valdosta Machinery & Supply Co., capital stock \$1000, inctpd. by D. A. Finley, S. A. Canton and E. E. Quinker to manufacture and repair machinery, including vehicles, locomotives and railroad cars.

Mo., Hagerstown.—Sand Glass Machinery. Pangborn Corp. is reported to have purchased 5 acres and to build factory containing 20,000 sq. ft. floor space; brick and steel construction.

Miss., Meridian.—Road Machinery.—Uniform Asphalt Distributor Co., capital stock \$15,000, inctpd. by N. V. Hendricks and others to manufacture machinery to surface roads and streets with asphalt and other bituminous material.

Mo., St. Louis.—Self-starter.—Hercules Self-Starter & Machinery Co., capital stock \$300,000, inctpd. by John J. Cochran, H. W. Broomey and Wm. Ramsey.

Okla., Tulsa.—Boilers, etc.—Tulsa Boiler Works Co., C. B. Farquharson, Pres., Peoria and Jefferson Sts. (lately noted incorporated, capital \$60,000), succeeds Tulsa Boiler & Sheet Iron Works; added car tank repair plant to equipment for production of boilers and tanks; no further equipment needed at present.

S. C., Yorkville.—Cotton Harvesters.—South Carolina Cotton Picker Co., J. B. Nelle of Filbert, S. C., Pres., contemplates increasing capital stock so as to manufacture and introduce cotton harvesting machine. (Previously noted organized, etc.)

Tenn., Memphis.—Welding.—Memphis Welding Co., capital \$10,000, inctpd. by H. G. Betzinger, J. D. Heckle, Maggie Richards and others.

GAS AND OIL ENTERPRISES

Ala., Dothan.—Gas Plant.—City plans to build gas plant. Address The Mayor.

Ala., Montgomery.—Lake Bistenau Oil Co., capital stock \$5000, inctpd.; J. B. Walter, Pres., Snowdown, Fla.; T. W. Peagler, V.-P., Greenville, Ala.; W. M. Browder, Jr., Secy.-Treas., Montgomery.

Ark., Pine Bluff.—Valley Oil Co., capital stock \$33,000, inctpd. by S. S. Faulkner, Geo. W. Willey, A. H. D. Perkins and others.

La., Shreveport.—Gusher Oil Co., capital stock \$100,000, inctpd. to drill for oil in Caddo Dist.; Max Schmitt, Pres., Cullman, Ala.; W. C. Gewin, V.-P., and F. B. Daniel, Secy., both of Birmingham; T. B. Russell, Treas., Oneonta, Ala.

Okla., Cushing.—Cudahy Refining Co., Harris Trust Bldg., Chicago, states will not build pipe line from Cushing to Coffeyville, Kans. (Recent report incorrect.)

Okla., Markham, P. O. at Pryor.—Concrete Oil & Gas Co., capital stock \$100,000, inctpd. by J. F. Patterson, F. N. Marrs, S. W. Colvin and others.

Okla., Markham.—Generate Oil & Gas Co., capital \$100,000, inctpd. by J. T. Patterson, F. H. Marrs, S. W. Clovin and Geo. Maddux.

Okla., Muskogee.—Xetloc Oil Co., capital stock \$100,000, inctpd. by Bert E. Nussbaum, E. M. Shepard and J. P. Fransworth.

Okla., Muskogee.—Basina Oil & Gas Co., capital stock \$10,000, inctpd. by A. Z. English, Wm. Z. Cook and A. A. Kinney.

Okla., Oklahoma City.—Refinery.—Capital Refining Co., 801 W. Main St., inctpd. with \$25,000 capital stock and Weston Atwood, Pres.; will build refinery with daily capacity 300 bbls.; plans provide for increasing output; ordered machinery.

Okla., Tulsa.—Chesapeake Oil & Gas Co., capital stock \$50,000, inctpd. by Eros Hammon, Albert H. Bell and C. T. Owen.

Okla., Tulsa.—Bair Oil Co., capital stock \$10,000, inctpd. by T. A. Penney, E. B. Miller, H. C. Kaufman and H. C. Tyrell.

Okla., Tulsa.—Baltic Oil & Gas Co., capital stock \$4000, inctpd. by J. W. Bird, N. E. Preston and Florence B. Ruby.

Okla., Tulsa.—B. B. Jones and others will construct 8-in. pipe line from Cushing oil field to Coffeyville and ultimately to Robinson, Ill.; carrying capacity of 20,000 bbls.

Okla., Vian.—Arkansas Oil & Gas Co., capital stock \$16,000, inctpd. by J. M. Brochman, Jas. Moody and E. A. Estep of Vian and L. C. McNabb of Sallisaw.

Tex., Houston.—Farmers' Petroleum Co. increased capital stock from \$30,000 to \$100,000; plans to lay 6-in. pipe line from Humble

to East Houston, where it has purchased 145 acres for tank farm; erect two 55,000-bbl. tanks.

Va., Waynesboro.—Blue Ridge Oil Co. (tentative organization), R. W. Crowder, general counsel, Crowder Bldg., Covington, Va., contemplates leasing for development 50,000 acres land on western slope of Blue Ridge, adjacent to Waynesboro and Basic City; the leases are being secured, and a test well 1800 to 2200 ft. deep is contemplated.

ICE AND COLD-STORAGE PLANTS

Ark., Hardy.—Jos. A. Welr, Memphis, Tenn., contemplates building cold-storage warehouse for meats and produce.

Ga., Atlanta.—Ponce de Leon Ice Mfg. Co., Greenwood Ave. and Southern Ry., will enlarge plant; cost \$1500.

Ga., Dublin.—City is reported to vote on \$75,000 bonds for cold-storage plant, etc. Address The Mayor. (See Road and Street Work.)

Ga., Savannah.—Savannah Brewing Co., W. W. Starr, Mgr., contemplates building ice plant.

Mo., Bethany.—J. R. Johnson of Springfield, Mo., is reported as organizing company to establish ice plant.

Mo., Buffalo.—Jas. A. Bonner will build five-ton ice plant; let contract for machinery to United Iron Works Co. of Springfield.

Mo., Kennett.—City voted to grant new franchise to Kennett Ice & Electric Co.

Mo., Springfield.—Springfield Arctic Ice & Cold Storage Co., capital \$25,000, inctpd. by W. R. Colcord, J. H. Sells and H. B. McDaniel.

S. C., Camden.—Carolina Ice Co. organized with T. M. Phifer, Pres.; C. S. Campbell, V.-P. and Treas.; F. G. Tompkins, Secy., all of Columbia, and A. J. Dickenson, Mgr., Camden; succeeds Camden Water, Light & Ice Co.; will improve plant; installing steam plant and other betterments at old powerhouse; daily capacity 30 tons ice. (Lately noted inctpd., under Columbia, with \$22,000 capital.)

S. C., Charleston.—Crystal Ice Factory organized with J. Henry Doscher, Pres., and G. F. Doscher, Secy.-Treas.; establish ice factory with daily capacity 75 tons.

Tenn., Dandridge.—Dandridge Light & Power Co. is reported as contemplating installing 2½-ton ice plant in connection with electric-light station.

Tenn., Dresden.—Mr. Brann is reported to build ice plant.

Tenn., Kendron, R. R. No. 1, Spring Hill.—H. A. Parham contemplates equipping 3 cold-storage rooms, about 16x18 ft., and installing refrigerating plant with probably 5-ton ice plant.

Tex., Victoria.—Texas Southern Electric Co. will build 50-ton distilled water ice-making plant in connection with electric plant. (Lately noted.)

Tex., Vinton.—Vinton Ice, Light & Water Co., capital \$20,000, organized; is having plans prepared for ice plant, electric-light and power station, etc.

Va., Crozet.—C. E. Starkweather, Propr. Clarewin Orchards, R. R. No. 1, contemplates building cold-storage warehouse.

Va., Richmond.—Roseneck Brewery Co. contemplates converting brewery into cold-storage warehouse.

Va., Strasburg.—Stickley Bros. are reported to build cold-storage warehouse for fruits; install refrigerating and ice-making plant.

W. Va., Fairmont.—City Ice Co., capital stock \$10,000, inctpd. by A. Spates Brady, F. R. Brahon, M. M. Foster and others.

IRRIGATION SYSTEMS

Fla., De Leon Springs.—Theodore Strawn, De Land, Fla., let contract for irrigation system at Island Grove, this system using turbo-irrigator sprinkler manufactured by J. P. Campbell, Jacksonville, Fla.

LAND DEVELOPMENTS

Ark., Walnut Ridge.—W. G. McClamroch Co., capital stock \$15,000, inctpd. by W. G. McClamroch, W. G. Johnson, L. L. Smith and Addie McClamroch.

La., Slidell.—Slidell Live Stock & Farms Co., capital \$50,000, inctpd. by Fritz Salmen, Albert Salmen, Edw. F. Halley and others.

N. C., Asheville.—F. A. Sumner, Henry B. Stevens and John B. Anderson will develop property in Victoria section for residential purposes; divide tract into lots, survey streets and sidewalks and make sewer and water connections.

N. C., Asheville.—Forbes & Campbell, agents for E. W. Grove, are reported as planning improvements to cost \$30,000 to \$40,000 at Grove Park; construct roads and sidewalks; extend water and sewer systems.

Okla., Tulsa.—Morningside Addition Co., capital stock \$10,000, inctpd. by Al Brown, E. J. Brennan and Cyrus S. Avery.

S. C., Charleston.—Sea Island Plant Co., capital \$1000, inctpd. by F. S. Cannon and K. D. Cannon.

S. C., Meggett.—Meggett Plant Co., capital \$100, incorporated by B. J. Donaldson and M. G. Donaldson.

Tex., Beaumont.—City defeated \$150,000 bonds to improve Island Park. C. L. Scherer, City Engr.

Va., Richmond.—Thrift Land Co., capital stock \$15,000, inctpd.; Warner Moore, Pres.; Warner Moore, Jr., V.-P., both of Richmond; E. M. Peterson, Secy.-Treas., Washington, D. C.

Va., Roanoke.—Brooklawn Farms, capital stock \$50,000, inctpd.; H. C. Elliott, Pres.; W. H. Wilson, Secy.-Treas.

LUMBER MANUFACTURING

Ark., Pine Bluff.—Pine Bluff Lumber & Box Co., Edgar Brewster, Pres., present address, Cllo, Ark. (lately noted inctpd., capital \$25,000), will operate in leased building already equipped; daily capacity, 30,000 ft. hardwood flooring and six shooks.

Ga., Savannah.—O'Neill-Fuller Lumber Co., capital \$10,000, inctpd. by John B. O'Neill, Ford B. Fuller and others.

Ky., Louisville.—Mehler Lumber Co., capital \$5000, inctpd. by Wm. Mehler, Anna Mehler and Fred Albright.

Ky., Louisville.—Mehler Lumber Co., capital stock \$5000, inctpd. by Wm. and Anna Mehler and Fred Albright.

La., Benton.—L. M. Dunn of Mineral Wells, Tex., is reported as planning to establish sawmill near Benton; 3-planer plant; daily capacity, 30,000 ft.; acquired timber tracts.

N. C., Statesville.—Success Lumber Co., capital \$10,000, is being organized by J. L. Sloan, J. A. Hartness, J. E. Tharpe and others; will acquire machinery of Phoenix Lumber Co. and will install in building to be erected by J. A. Davidson.

S. C., Charleston.—L. O. Steinback Lumber Co., capital \$50,000, inctpd.

Va., Boydton.—Bernhardt Lumber Co., capital stock \$99,000, inctpd.; J. M. Bernhardt, Pres., Lanier, N. C.; Boone Clark, V.-P.; D. F. Clark, Secy.-Treas.; both of Boydton.

W. Va., Mingo County.—Cole & Crane, Cincinnati, O., did not purchase lately-noted timber land. (Report was incorrect.)

METAL-WORKING PLANTS

Va., Newport News.—Horticultural Tools, etc.—International Tool Co., I. H. Case, Pres., advises is removing plant from Detroit, Mich.; will erect 50x100-ft. frame and corrugated-iron building; completed all arrangements for building and supplies; will manufacture horticultural tools and hardware specialties. (Lately noted inctpd., capital stock \$30,000, etc.)

MINING

Ala., Alpine.—China Clay.—T. L. Cook contemplates development of extensive deposit china clay in Talladega county on Atlanta, Birmingham & Atlantic R. R.

Ark., Rush.—Zinc.—Fuller-Shepherd Mining Co. (lately noted inctpd., capital stock \$10,000) organized; John T. Fuller, Pres.; P. T. Glass, Yellville, Ark., V.-P.; John Connors Shepherd, Secy.-Treas.; now operating two leases; contemplates operating six leases; will need zinc mill machinery and general mining equipment. (See Machinery Wanted.)

Fla., Quincy.—Fuller's Earth.—Floridin Co., Warren, Pa., will rebuild fuller's earth mining and handling plant previously reported burned; has let all contracts for construction and purchased all machinery.

Ga., Dahlonega.—Gold.—Ashton & Munson are reported to develop mines on Briar Patch and Calhoun properties; plan to install boilers and pumping equipment on Chestatee River to furnish water to operate placers.

Ky., Louisville.—Lithograph Stone.—Kentucky Lithograph Stone Co., capital stock \$35,000, inctpd.; R. T. Durrett, J. C. Hood, John S. Waters and others.

Ky., Louisville.—Barytes.—Kentucky Barytes Co. leased and will develop barytes land 4 mi. from Louisville.

Ky., Louisville.—Barytes.—Jas. Eastin, Welman & Co., Pittsburgh, Pa., leased and

will develop barytes land 1 mi. from Louisville.

Ky., Louisville—Barytes.—E. C. Young, Charleston, W. Va., leased and will develop barytes land.

La., Woodworth—Gravel.—Rapides Gravel Co., Box 57, Alexandria, La., Geo. K. Force, Gen. Mgr., will develop lately-noted gravel deposits; about 45 acres; daily capacity, 1000 to 1500 cu. yds.; asks bids on pumping gravel. (See Machinery Wanted.)

Mo., Joplin—Lead and Zinc.—Muskogee Mining Co., capital \$10,000, inctpd. by J. R. Dudding, Lee Rowe and W. C. Webb.

Mo., Joplin—Lead and Zinc.—Olive Cherokee Lead & Zinc Mining Co., capital \$50,000, inctpd. by G. W. Short, R. W. Morrison and R. J. Short.

Mo., Kansas City—Lead and Zinc.—Sweetwater Mining Co., capital \$2000, inctpd. by H. C. Campbell, A. H. Bernard and F. E. Tyler.

Tenn., Paris—Limestone.—Business Men's Club, Louis Spencer Daniel, Secy., acquired previously-noted limestone quarry and contemplates development; capital secured; manager not selected; contemplates choosing manager with capital to invest, then purchasing machinery and erecting buildings.

MISCELLANEOUS CONSTRUCTION

Fla., Fort Pierce—Seawall and Dock.—City has plans for seawall, docks, boulevard drive, sidewalks and extension of Orange and Palmetto Aves. Address The Mayor.

Fla., Fort Myers — Docks.—Fort Myers, Marco Bay & Miami R. R., W. B. Clay, Ch. Engr., Arcadia, Fla., is reported to construct docks to handle coal in lumber at Marco Bay. (See Bridges, Culverts, Viaducts.)

Fla., Jacksonville—Swimming Pool.—Public Works Comm. will build swimming pool 40x100 ft.; appropriation \$5000.

Fla., Jacksonville — Swimming-pool.—City will construct swimming pool in Springfield Park; 100x40 ft.; contain 4000 sq. ft.; 2 ft. deep at eastern end and 8 ft. at western; bottom and walls of concrete; bathouses on 2 sides; estimated cost \$5000.

Fla., Jacksonville—Wharves, etc.—City will construct timber marginal wharves at municipal terminal docks; plans and specifications call for about 110,000 sq. ft. of work; material to be used includes 1760 creosoted piles, 520 cypress piles, 228 fender piles, 840, 600 ft. board measure cypress timber, etc.; all material to be furnished by Port Commissioners; appropriation \$25,000; Port Commissioners, F. W. Bruce, Ch. Engr., invite bids until Mch. 20; will also construct railroad embankment from point connecting with St. Johns River Terminal Co. near 21st St. and extending on curve to or near Evergreen Ave., about 1300 ft.; yardage, about 600; Port Commrs. receive bids until same date; this is in connection with construction of municipal terminal previously described; Home Dredging Co. of Mobile, Ala., is proceeding with dredging contract. (See Machinery Wanted.)

Fla., St. Petersburg—Mausoleum.—Ohio Mausoleum Co., capital stock \$30,000, inctpd.; Sylvester D. Hollenbeck, Prest., Pass-a-Grille, Fla.; Wm. G. Kline, V.-P., Cleveland, O.; Amos P. Avery, Treas., and Wm. G. King, Secy., both of St. Petersburg.

S. C., Columbia—Heating Plant.—University of South Carolina will extend central heating plant in LeConte College; about 2200 ft. conduit and steam main and 4300 radiation; \$12,500 available; plans ready by April 1; Archts., Wilson & Sompayrac, 1404 Palmetto Bldg., Columbia.

Tex., Port Bolivar—Steamship Terminals.—Paul T. Bruyere, Engr., Room 1478, at 50 Church St., New York, states a terminal development is contemplated on the 500 acres he was recently reported as having optioned; idea is to follow plans and principles by which Bush Terminal Co., Brooklyn, N. Y., was developed; construction plans, names of interested capitalists, etc., not ready for advancement.

Tex., Houston—Channel and Dock.—Bay View Channel & Dock Co., capital stock \$5000, inctpd. by Jos. F. Meyer, Camille G. Pillot and Henry Henke.

Tex., Houston—Wharf and Warehouse.—City, Ben Campbell, Mayor, let contract Horton & Horton, Houston, for wharf and warehouse construction; cost \$150,000; sub-contract for some dredging let to L. T. Gaylord. (Horton & Horton previously noted as lowest bidders on first unit, including dredging, of wharf and warehouse system on ship channel.)

MISCELLANEOUS ENTERPRISES

Ala., Mobile—Dyeing.—Gulf City Dye Works, capital stock \$10,000, inctpd.; J. W. Phillips, Prest.; C. W. Smith, Secy.-Treas.

Ark., Newport—Hardware.—Beattie Hardware Co., capital stock \$10,000, inctpd. by S. M. Beattie, E. H. Wilson, J. N. Lewis and others.

Ga., Dublin—Crematory.—City is reported to vote on \$75,000 bonds for garbage-disposal plant, etc. Address The Mayor. (See Road and Street Work.)

Ky., Lexington—Laundry.—Cropper Laundry, capital stock \$25,000, inctpd. by W. N. Cropper, Shelby T. Harbison and Clinton M. Harbison.

Miss., Natchez—Grain Elevator.—Neely Bros. & Co. are reported to build grain elevator; capacity, 40,000 bu.; cost about \$25,000.

Miss., Shannon—Grain Elevator, etc.—W. B. Redus & Sons will install elevator and corn sheller.

Mo., Carthage—Stone Cutting.—John Gill & Sons Co. of Cleveland, O., contractors to build State Capitol at Jefferson City, will equip \$100,000 plant to cut stone to be used in erection of Capitol.

Mo., Kansas City—Stock Yards.—Kansas City Stock Yards Co., Geo. R. Collett, Mgr., plans expenditure of \$2,500,000 for extending, improving and rebuilding existing facilities; increase cattle pen capacity 25 per cent.; increase hog barns from 40,000 to 50,000 capacity and rebuild of concrete; increase sheep barns from 50,000 to 60,000 capacity; increase cattle handling capacity from 50,000 to 65,000 daily; has site for improvements; track and terminal construction will represent \$1,000,000 of the \$2,500,000 mentioned.

Okla., Enid—Grain Elevator.—A. E. Stephenson (Prest. Central State Bank) will build grain elevator; capacity, 50,000 bu.; A. F. Roberts, Contr., Sabetha, Kans.

Okla., Gerty—Grain Elevator.—Gerty Mill & Elevator Co. inctpd. by J. C. Ingram and others. (See Flour, Feed and Meal Mills.)

Okla., Laverne—Grain Elevator.—Laverne Farmers' Society of Equity is reported to build grain elevator with capacity of about 10,000 bu.

Okla., Tulsa—Oklahoma Spring Water & Power Co., Box 723 (lately noted inctpd.), will develop water-power. (See Water-power Developments.)

Tenn., Nashville—Publishing.—Banner Publishing Co., E. M. Foster, Business Mgr., has plans by Russell E. Hart, Nashville, to build proposed structure for offices and printing plant; daily newspaper; for the present has postponed erection of building.

Tex., Hillsboro—Crematory.—City votes April 6 on \$5000 bonds to build crematory. M. W. Lovell, Mayor.

Tex., Panhandle—Grain Elevator.—C. B. Cozart Grain Co. will build 15,000 bu. grain elevator.

Tex., San Antonio—Construction.—Warfield-Green Construction Co., capital stock \$5000, inctpd. by W. F. Warfield, E. C. Green and W. E. Green.

Va., Big Stone Gap—Construction.—Cumberland Construction Co., capital \$25,000, incorporated; R. A. Ayers, Prest.; G. T. Bostwick, Secy.-Treas.

Va., Lynchburg—Laundry.—White Star Steam Laundry Co., 306 12th St., will erect brick and concrete addition; cost \$7800; fire-proof construction; contract let to W. T. Jones; plans by J. M. B. Lewis; install new boiler, pump and hot-water system and probably some laundry machinery. (See Machinery Wanted.)

Va., Norfolk—Shipbuilding.—F. O. Smith Shipbuilding & Drydock Co., capital stock \$100,000, inctpd.; Fred O. Smith, Prest.; J. N. Smith, Secy.

W. Va., Pineville—Publishing.—Wyoming Publishing Co., capital \$2000, inctpd. by J. Albert Toler, Price Cook, W. B. Welcher and others.

MISCELLANEOUS FACTORIES

Ala., Birmingham—Bottling.—Nifty Cola Bottling Co., capital stock \$2000, inctpd.; W. I. Wallie, Prest.; P. B. Hargrove, V.-P.; R. H. Nichols, Secy.-Treas.

Ala., Birmingham—Bottling.—Glee Cola Co., capital stock \$5000, inctpd. by C. B. Webb, M. B. and Geo. M. Webb and National Remedies Co.

Ala., Birmingham—Valves.—Morris-Wertheimer Valve Co., capital stock \$4000, inctpd.; J. H. Morris, Prest.; M. L. Wertheimer, V.-P. and Gen. Mgr.; Eugene Wertheimer, Secy.-Treas.; will manufacture noiseless ball cock

valve; asks prices on brass castings. (See Machinery Wanted.)

D. C., Washington—Chemicals.—National Chemical Laboratories Corp., capital \$25,000, chartered by A. H. McKnight (238 8th St.) and M. R. Walton of Washington and H. W. Davis of Wilmington, Del.

D. C., Washington—Bakery.—Havener Baking Co., C. near 6th St., let contract to Jas. L. Parsons, \$15 Union Trust Bldg., Washington, to repair fire damage to building; cost \$7000.

Fla., Fort Pierce—Ice Cream.—Peerless Ice Cream Co., Miller D. Rhea, Mgr., will establish lately-noted plant to manufacture ice cream, etc.; machinery contracts let; daily capacity 100 gals.

Fla., Jacksonville—Beverage.—Chas. Morgan and others are reported to establish plant to carbonate and bottle pineapple juice.

Fla., Jacksonville—Food Products.—Table Products Co., capital stock \$30,000, inctpd.; Walter C. Warrington, Prest.; Chas. A. Green, V.-P.; David Warrington, Secy.-Treas.

Fla., Ocala—Bottling.—Ocala Chero-Cola Bottling Co., capital stock \$5000, inctpd.; R. E. Layton, Prest.; Bessie Barnett, V.-P.; W. N. Lane, Secy.-Treas. (Lately noted to have leased building and purchased \$3000 worth of machinery for plant to manufacture carbonated drinks.)

Fla., Worthington—Stump Puller.—W. S. Dickens contemplates production of patented stump puller. (See Machinery Wanted.)

Ga., Rome—Ice Cream.—Purity Ice Cream Co., 4th Ave., let contract to erect 20x100-ft. building and purchased machinery for lately-noted ice-cream plant; daily capacity 500 gals.; Walter Clark, Prest.; C. T. Hollinger, V.-P. and Mgr.

Ga., Savannah—Sugar Refinery.—Savannah Sugar Refining Co., capital stock \$100,000, incorporated by Robt. M. Hitch of Savannah, M. R. Spellman, John F. Wallace, Albert L. Kramer and Jas. Imbrie, all of New York; will establish sugar refinery. (Mr. Spellman lately reported as considering establishment of sugar refinery.)

Ky., Louisville—Pillows.—Louisville Pillow Co. increased capital stock from \$150,000 to \$200,000.

Ky., Louisville—Stamps and Stencils.—Koehler Stamp & Stencil Co., capital stock \$15,000, inctpd. by Henry L. and Geo. A. Koehler and H. H. Huffaker.

Ky., Maysville—Creamery.—C. M. Dooley is reported to have leased first floor of building to be erected by Knights of St. John; install machinery for creamery.

La., Baldwin—Cane Syrup.—Gilbert Industrial College, Dr. R. J. Reynolds, principal, will install mill and kettles, 10 to 20 tons capacity, for manufacturing ribbon cane syrup; has not purchased machinery. (See Machinery Wanted.)

La., New Orleans—Insecticide.—New York Insecticide Co., capital stock \$50,000, inctpd. by Edmond Cabiro of New Orleans and H. Schram of Mt. Vernon, N. Y.; will build plant at 523 Decatur St.

Md., Baltimore—Bakery.—August A. Otterbein, 600 E. Fort Ave., let contract to Henry Pierson & Sons, 1000 Oliver St., Baltimore, to erect 47x42-ft. building; 2 stories and basement; ordinary construction; cost \$4500.

Md., Hagerstown—Bottling.—R. J. Shine, Martinsburg and Charleston, W. Va., will establish bottling plant; erect 2-story 60x30-ft. brick building costing \$4000.

Md., Williamsport—Brooms.—Potomac Broom Co., Box 232, L. G. Cottrill, Secy. and S. K. Eckis, Mgr., will operate broom factory lately noted purchased; machinery supplied; manufacture all kinds of brooms.

Mo., Columbia—Shoes.—Bergman Shoe Co., care of Hamilton Brown Shoe Co., will establish lately-noted factory; H. W. Bergman, Prest.; T. C. Hogan, V.-P.; J. N. Booth, Secy.; will erect 50x200-ft. 3-story reinforced concrete building; date of opening building proposals not set; needs complete equipment shoe machinery, daily capacity 1000 pra. house slippers and light footwear. (See Machinery Wanted.)

Mo., Kansas City—Slatum Mfg. Co., capital \$100,000, inctpd. by G. H. Eever, O. H. Swearingen and F. W. Patrick.

Mo., Kansas City—Safety Mfg. Co., capital \$10,000, inctpd. by Geo. C. Bayne, L. E. Wyne and J. F. Schaefer.

Mo., Maplewood—Almebal Mfg. Co., capital \$6000, inctpd. by N. N. Nunn, L. P. and Frank S. Huey.

Mo., St. Louis—Garments.—F. & M. Garment Mfg. Co., capital stock \$10,000, inctpd. by Julius Feist, Alex. G. Millus and Isadore Lotzschman.

Mo., St. Louis—Clothing.—Star Clothing Co., Jas. A. Houchin, Prest., Jefferson City, Mo., is reported to have leased space in Sullivan Bldg. and to equip to manufacture clothing.

N. C., Durham—Ice Cream.—Warren-Baer Co. will install ice cream manufacturing plant in Wright Bldg.

Okla., McAlester—Ice-cream and Creamery.—McAlester Ice-Cream & Creamery Co. purchased Steffen-Bretch ice-cream factory and will probably install additional equipment.

S. C., Alvin—Turpentine, etc.—Lloyd H. Grandy, care of B. E. Grandy & Sons, contemplates establishment of plant to distill naval stores products from lightwood. (See Machinery Wanted.)

S. C., Columbia—Beverages.—H. D. and J. K. Crosswell, capital \$5000, inctpd. to manufacture soda fountain syrups and supplies.

Tenn., Chattanooga—Toilet Articles.—National Mfg. Co., 114-116 W. 7th St., increased capital stock from \$10,000 to \$50,000.

Tex., Austin—Fuel.—Texas Nu-Fuel Co., capital stock \$3000, inctpd. by A. Lacy, T. J. Lacy and H. Smith.

Tex., Austin—Fuel Briquets.—Oakleaf Mfg. Co., previously noted as establishing fuel briquet plant at San Antonio, is now installing similar plant at Austin; manufacture fuel briquets from city garbage, factory waste, etc.; G. E. Richmond, 1407 Congress Ave., Richmond, is interested; some further equipment is needed. (See Machinery Wanted.)

Tex., Beaumont—Rice Mill.—Neches Rice Milling Co. (lately reported inctpd. with \$50,000 capital stock by W. C. Tyrell and others) changed name to Tyrell Rice Milling Co.; purchased properties of Bettis Mfg. Co., consisting of 18 lots and plant, buildings and machinery; remodel present buildings; erect rice elevator costing \$40,000; mill to have daily capacity of 1200 bbls. rice; also preparing plans for fireproof rice warehouse costing \$20,000.

Tex., Dallas.—Gilbert Mfg. Co., capital stock \$20,000, inctpd. by F. M. Jackson, Lewis W. Doren and H. E. Spofford.

Tex., Galveston—Ice Cream.—Ford Ice Cream Co., capital stock \$10,000, inctpd. by S. J. Heyman, I. E. Johnson and Jas. Ford; establish plant at 1021 Tremont St.

Tex., Wichita Falls—Ice Cream, etc.—R. J. Easterday, Enid, Okla., will build ice-cream factory and creamery; erect building costing \$3500 and install machinery costing \$4000; weekly capacity, 30,000 gals. ice cream and 40,000 lbs. butter.

Va., Kenbridge—Kenbridge Mfg. Co., capital stock \$25,000, inctpd.; L. W. Bridgeforth, Prest.; S. B. Watkins, Secy.-Treas.

Va., Richmond—Caps.—Keyless Kap Co. authorized capital stock \$500,000, inctpd.; Milton J. Rosencrantz, Prest.; J. Meredith Rosencrantz, Secy.-Treas., both of New York.

Va., Suffolk—Peanuts.—Planters' Nut & Chocolate Co., A. Obid, Prest., will erect lately-noted addition; 140x70 ft. mill-construction brick building; install peanut-cleaning machinery.

Va., Wytheville—Gloves.—Virginia Glove Co. will establish factory for canvas gloves; rent building; J. M. Blessing, Prest.; W. R. Shelor, V.-P. and Mgr.; Robt. P. Thomas, Secy.-Treas. (See Machinery Wanted.)

W. Va., Clarksburg—Glass.—Norwood Glass Co., E. P. Hochstrasser, Prest., let contract Pittsburgh & Des Moines Bridge Co., Pittsburgh, Pa., at about \$75,000 to build plant in Norwood addition; steel and sheet iron construction; proposed to manufacture hand-blown glass, but building is so planned that machines may be installed.

W. Va., Kingwood—Creamery.—Crystal Spring Creamery Co., capital \$10,000, inctpd. by J. F. Brand, J. A. Sterling, E. M. Lantz and others.

W. Va., Salem—Window Glass.—Alliance Window Glass Co. (previously noted inctpd. capital \$75,000) organized; Fernand Ducoeur, Sr., Prest.; Arthur Monscur, V.-P.; Anthony N. Stenger, Secy.; Hector Ruquoy, Treas.; will erect \$65,000 plant; 36 blower tank capacity; mill construction buildings; manufacture window glass; Horner Bros., Clarksburg, W. Va., will prepare plans.

MOTORS AND GARAGES

Ala., Birmingham—Automobile Line.—Jitney Motor Co., capital stock \$2000, inctpd.; W. E. Haskins, Prest.; Letta Moore, V.-P.; R. H. Perry, Secy.-Treas.

Ark., Blytheville—Garage.—H. H. Houchins is reported to build garage.

Ga., Atlanta—Garage.—E. G. Willingham, 185 Whitehall St., will build garage; brick construction; day labor.

Ky., Carlisle-Garage.-H. B. Bryson will build garage; brick; 100x31 ft.

La., New Orleans-Automobile Line.-Jitneymobile Co., 761-763 Audubon Bldg., incptd. with \$200,000 capital stock; L. Edward Clark, vice-president.

Md., Baltimore-Garage.-Miss Anna Diggleman, 2702-4 Harford Rd., has plans by Jno. C. Spedden, 1640 Hanover St., Baltimore, for garage at 2702-4 Harford Rd.; 2 stories; 86x28 ft.; brick; slag roof; heating reserved; electric light; cost about \$6000; bids opened Mch. 5.

Md., Baltimore-Garage.-Electric Service Garage Co., 415-7 Gaither Bldg., is having plans prepared by Emory & Nussear, Professional Bldg., Baltimore, for electric service garage on Calvert St.; 2 stories; 150x300 ft.; reinforced concrete; slag roof.

Md., Baltimore-Automobile Line.-Baltimore & Washington Boulevard Motor Co., capital \$10,000, incptd. by Dr. Frank J. Kony, 132 McCulloh St. (Pres.), C. E. Trace, E. A. Reiner, J. Morton Lehman and others, all of Baltimore; will operate motorbus line between Baltimore and Washington.

Mo., Cowgill-Garage.-Cowgill Garage & Light Co., capital \$8000, incptd. by R. A. Thompson, O. C. Switzer and Otis Lashley.

Mo., Ferguson-Automobiles.-St. Louis County Automobile Co., capital \$5000, incptd. by Katherine Strauss, G. J. Bopp and H. V. S. Gruner.

Mo., Kansas City-Automobile Line.-Jitney Transportation & Storage Co., capital \$3000, incptd. by Frank H. Woodbury, C. L. Daniels and Chas. P. Woodbury.

Mo., Kansas City-Garage.-Edwin W. Shields, Pres. Simonds-Shields Grain Co., will erect building at 21st St. and Grand Ave.; 6 or 7 stories; 15,000 sq. ft. floor space; reinforced concrete with exterior of tapestry brick and terra-cotta; estimated cost \$100,000; structure will be occupied by Studebaker (O.) Corp.; Architects, Wilder & Wight of Kansas City; general contractor, Swenson Construction Co. of Kansas City.

Mo., St. Louis-Automobiles.-Carter Motors Co., capital stock \$3000, incptd. by C. O. Barker, A. H. Little and H. C. Weed.

N. C., Henderson-Garage.-J. A. Brock will erect brick garage to be occupied by Blue Ridge Garage.

N. C., North Wilkesboro-Automobiles.-Yadkin Valley Motor Co., capital stock \$25,000, incptd. by Chas. C. Smoot, Rebecca U. Smoot and Finley G. Harper.

N. C., Salisbury-Automobile Supplies.-Southern Automobile Supply Co., 207 S. Main St., capital stock \$25,000, incptd.; R. B. Yancey, Secy.-Treas.; R. F. Brown, Mgr.; deal (wholesale and retail) in automobile supplies and accessories.

S. C., Columbia-Garage and Shops.-Shand Engineering Co., Columbia, is preparing plans for 51x80-ft. and 37x60-ft. garage and shops; cost \$8000; construction by owner (name not given).

Tex., El Paso-Garage.-Mrs. A. P. Cole has plans by E. Krause for garage; 93x130 ft.; cost \$9000.

Va., Richmond-Automobile Line.-Jitney Assn., capital stock \$10,000, incptd.; Jacob Van Doren, Pres.; A. R. Tiller, Secy.

Va., Richmond-Automobiles.-Winchester Auto Sales Co., capital stock \$20,000, incptd.; C. W. Fritts, Pres.; White Post, Va.; J. C. Horn, Secy.-Treas., Winchester, Va.

W. Va., Beckley-Garage.-G. W. Bair, Jr., Lumber Co. will erect brick garage; 55x40 ft.; 2 stories; lower story stone; second story frame; composition roofing; cost \$3000; for storage and repairing.

W. Va., Welch-Automobiles.-Ford Sales Co., capital \$10,000, incptd. by W. M. Armours, J. F. Johnson, C. S. McNary and others.

ROAD AND STREET WORK

Ala., Anniston.-Calhoun county will grade, drain and surface with macadam or chert part of Piedmont and Jacksonville Rd.; expend \$1616.26; County Comms. receive bids until April 7; W. S. Keller, State Highway Engr., Montgomery. (See Machinery Wanted.)

Ala., Camden.-Wilcox county votes Mch. 30 on \$25,000 bonds to construct roads and bridges. J. N. Stanford, Judge of Probate.

Ala., Elba.-City, W. M. Tucker, Mayor, contemplates constructing 2 or 3 mi. sidewalk pavings; has built about 5 mi.

Ala., Fort Payne.-De Kalb county will grade, drain and surface with chert part of Collinsville and Dawson Gap Rd.; expend \$7116.26; County Comms. receive bids until April 9; W. S. Keller, State Highway Engr., Montgomery. (See Machinery Wanted.)

Ala., Huntsville.-Madison County Commissioners let contract to Lawrence Cooper and M. R. Walker at \$440 and to Frank Powell at \$2100 to reconstruct Big Cove pike.

Ala., Lafayette.-Chambers county will grade and drain about 5 mi. Welch and State Line road; expend \$4616.26; County Comms. receive bids until March 25; W. S. Keller, State Highway Engr., Montgomery. (See Machinery Wanted.)

D. C., Washington.-District Comms. will grade streets; about 30,000 cu. yds. grading; bids until Mch. 15. (See Machinery Wanted.)

Fla., Clearwater.-City set Mch. 19 as date for receiving lately-noted new bids for brick or asphaltic concrete street paving, street drains and basins, and concrete combined curb and gutter; \$45,500 available; R. T. Daniel, City Clerk; J. N. Drew, City Engr. (See Machinery Wanted.)

Fla., Fort Pierce.-City has plans for boulevard drive, sidewalks and extension of Orange and Palmetto Aves. Address The Mayor. (See Miscellaneous Construction.)

Fla., Largo.-City voted \$11,000 bonds for street paving. Address The Mayor.

Fla., Largo.-City voted \$11,000 bonds to improve streets. Address The Mayor.

Fla., Miami.-City Council let contract to R. B. Fickett at \$7346 to pave 11th St. from Avenue M to river with liquid asphalt, with reinforced-concrete curb and gutter; also to F. L. DeVane at \$497 to pave Northern Blvd. from 22d St. to Western Blvd., 16-ft. roadway; W. B. Moore, City Clerk. (Call for bids lately noted.)

Fla., Miami.-Dade county, southern section, votes Apr. 20 on organization of district and issuance of \$100,000 bonds to construct Ingraham highway from Homestead south to Monroe county line.

Fla., Miami.-City contracts now out for street and sewer work to amount to about \$350,000; one contract (recently noted under Sewers) is for 18 mi. sewers, John J. Quinn, Bedford, Ind., Contr.; Southern Asphalt & Construction Co., Birmingham, Ala., and L. G. Prouditt, Chicago, Ill., have contracts to about \$250,000 for asphalt pavement; Biscayne Construction Co., Miami, Contr. for sidewalks to about \$20,000; also 8 or 10 additional small contracts for paving and sewers now being completed by local contractors; W. B. Moore, City Clerk. (Previously variously noted.)

Fla., St. Petersburg.-City let contract Georgia Engineering Co. of Augusta, Ga., to pave with brick 2d St. N. from 8th to 12th Ave., and 12th Ave. from 1st to 2d St.

Fla., Tarpon Springs.-City let contract J. B. McCrary Co. of Atlanta, Ga., to furnish brick and pave streets and to Tarpon Springs Cement & Stone Co. to place cement curbing.

Fla., Tavares.-Lake county will construct roads; 1,091,046 lin. ft. roadway, 229,630 cu. yds. excavation, 1,147,610 sq. yds. pavement, 301.62 cu. yds. concrete, 1554 lbs. square deformed steel, etc.; County Comms., J. H. Compton, Chrmn., receive bids until Apr. 15; Engr., J. B. McCrary Co., 1408-1417 Third National Bank Bldg., Atlanta, Ga.; noted in Jan. (See Machinery Wanted.)

Ga., Atlanta.-Ewing & Brandon let contract to grade Moreland Ave. from Greenwood Ave. to city limits.

Ga., Waycross.-City will construct about 11,000 sq. yds. brick paving on Carswell Ave., on sand foundation (curbing laid); Mayor and Board of Aldermen receive bids until Mch. 16; A. L. Lowther, City Clerk. (See Machinery Wanted.)

Ga., Dublin.-City is reported to vote on \$75,000 bonds for street improvements, cold-storage plant for meat, garbage-disposal plant, school buildings, etc. Address The Mayor. (Noted in February.)

Ky., Barbourville.-Knox county voted \$200,000 bonds to construct roads. Address County Comms. (Noted in January.)

Ky., Carlisle.-Nicholas county, Jas. Mitchell, Judge, will open bids about May 1 to construct about 250 mi. road at expenditure of \$250,000, provided bond issue of \$125,000 (lately noted to be voted upon Mch. 17) is carried; will let contracts; J. W. Williams, Engr., Carlisle.

Ky., Hickman.-Fulton county plans to vote May 22 on \$300,000 bonds to construct roads. Address County Comms.

Ky., La Grange.-Oldham county votes Apr. 20 on \$100,000 bonds to improve roads; secure \$50,000 State aid. Address County Judge S. E. DeHaven.

Ky., Louisville.-Jefferson County Comms. opened bids to construct roads; Hoke Co. is lowest bidder at \$6830 to reconstruct River Rd., requiring 5000 sq. yds. macadam; Henry

Bickel Co. is lowest bidder at \$5509.49 to improve Newberg Rd., requiring 5000 cu. yds. water-bound macadam and 800 cu. yds. screening; Hoke Co. is lowest bidder at \$3457 for bituminous macadam, penetration method; American Standard Asphalt Co. at \$4690 for bituminous concrete, and Henry Bickel Co. at \$5470 for rock asphalt for three-quarters of mi. of Preston St. Rd.; all of Louisville.

Ky., Louisville.-Board of Public Works let contract to Henry Bickel Co. at \$8500 to pave Green St. from 1st to Floyd St. with vitrified blocks.

Ky., Madisonville.-Hopkins county plans to vote May 8 on \$300,000 bonds to improve roads and construct bridges. Address County Comms.

Ky., Maysville.-Mason county votes May 15 on \$200,000 bonds to rebuild 4 main turnpikes-Maysville and Lexington, Maysville and Mt. Sterling, Mason and Lewis, Mt. Sterling and Bracken. (Noted in January.)

Ky., Maysville.-City plans to pave streets with brick; J. Wesley Lee, Mayor.

Ky., Smithland.-Livingston county will construct roads costing \$24,000; plans not decided. Address Jno. C. Parsons. (Lately noted.)

La., Jennings.-Jefferson Parish votes in April on \$100,000 bonds to construct roads. Address Police Jury.

La., Lake Charles.-Calcasieu Police Jury will construct Highways 5 and 7; former requires clearing 80 acres, grubbing 600 stations, excavating 90,000 cu. yds. and 900 lin. ft. 18-in. vitrified pipe; latter requires clearing 25 acres, grubbing 400 stations, excavating 48,000 cu. yds. and 700 lin. ft. 18-in. vitrified pipe; bids until Apr. 6; lately noted. (See Machinery Wanted.)

La., Mansfield.-City let contract G. E. Soderstrom, Charleston, Mo., to construct 4 1/2 mi. concrete sidewalk; Jos. E. Elam, Mayor.

La., Plaquemine.-Iberville Parish Police Jury will construct gravel roads; about 50 mi.; issue \$100,000 bonds.

Md., Baltimore.-City will construct cement footways around various city buildings; Group No. 1, 15,000 sq. ft.; Group No. 2, 12,000 sq. ft.; Group No. 3, 20,000 sq. ft.; Group No. 4, 17,000 sq. ft.; Board of Awards receives bids until March 17; H. K. McCay, City Engr. (See Machinery Wanted.)

Md., Betterson.-Town Comms., A. H. Supply, Secy., will construct about 30,000 or 40,000 sq. ft. cement and concrete roads and sidewalks; will let contract. (See Machinery Wanted.)

Md., Rockville.-Montgomery county will construct 3.52 mi. State-aid highway upon or along county road between Buck Lodge and State Rd. at Lee's Corner; County Comms., Richard T. White, Jr., Pres., will receive bids until March 23. (See Machinery Wanted.)

Miss., Clarksdale.-Coahoma County Supervisors let contract to S. A. Gano, Jackson, Miss., to construct 3 1/2 mi. gravel roads, Clarksdale to Big Creek; 24-ft. grade, 16-ft. gravel; \$70,000 available; gravel supplied by county; J. R. Shidler, Engr. (Bids lately noted.)

Miss., Clarksdale.-City, W. H. Hopson, Street Commr., let contract to S. A. Gano, Jackson, Miss., to gravel 3 mi. streets; width 16 ft.; little grading; contract price \$1356 per mi.; \$15,000 available; gravel supplied by city. (Bids lately noted.)

Miss., Columbus.-Comms. Lowndes County Good Roads Dist. No. 2, T. J. Locke, Jr., Secy., invites bids until Mch. 23 to furnish material and improve 22 mi. of roads, clay and sand to be used, with surfacing of Novaculite; Gus E. Hauser of Aberdeen prepared plans and specifications; \$50,000 bonds voted. (Lately noted.)

Miss., Meridian.-City contemplates voting on \$30,000 street and sewer bonds. Address The Mayor.

Miss., Oxford.-Lafayette County Supvrs. authorized \$10,000 bonds to construct roads in Road Dist. No. 3.

Miss., Pass Christian.-City will pave sidewalks on Front St. from Davis Ave. to Market St., Market St. to 2d St., and both sides Davis Ave. from Front to 5d St. Address The Mayor.

Miss., Vicksburg.-Warren County Supvrs. let contract H. F. Garbush at \$22,526.50 to construct 5 1/2 mi. novaculite road. (Call for bids lately noted.)

N. C., Ashboro.-Randolph County Commissioners let contract to construct sand-clay road from Ashboro to High Point; length 23 mi.

N. C., Elizabeth City.-City will pave Riverside Ave. with brick; let contract Westport

Paving Brick Co. to furnish 1,000,000 bricks. Address The Mayor.

N. C., Lenoir.-City will improve streets, sidewalks, etc. Address The Mayor.

N. C., Lumberton.-City's lately-noted bond issue of \$35,000 pays for improvements already made; no new construction.

S. C., Spartanburg.-Spartanburg county is reported to vote Mch. 30 on \$300,000 bonds to improve roads. Address County Comms. (Lately noted.)

S. C., Sumter.-Sumter County Comms. will issue \$10,000 road-improvement bonds.

Tenn., Centerville.-Hickman county, Centerville Dist., defeated lately-noted bonds for roads.

Tenn., Knoxville.-Knox County Comms. let following contracts for road construction: Mark and Geo. Bearden at about \$4000 to grade Clinton pike from Bell's Bridge to Anderson county line, nad Dykes & Co. at \$3000 to macadamize road, 1 1/4 mi.; Donovan, Doughty & Taylor at about \$4000 to construct Lonsdale Extension from Oldham St. to Lonsdale line, 3/4 mi., and road from Beaumont School to University Ave. and Munson St.; J. W. Gillespie at \$3000 to furnish and place macadam on Ball Camp pike, beginning at Third Creek.

Tenn., Madisonville.-City will grade and construct concrete sidewalks, to include both sides of College St. for about 4000 lin. ft.; Sidewalk Com. receives bids until March 20; W. R. Sloan, Recorder. (See Machinery Wanted.)

Tenn., Park, R. Station Knoxville.-City will pave about 2 mi. of streets; expend \$103,500. Address The Mayor.

Tenn., Sweetwater.-City contemplates voting on \$5000 bonds to improve streets. Address The Mayor.

Tex., Anderson.-Grimes County Road Dist. No. 5, Precinct 1, defeated \$65,000 bonds for road construction lately noted to be voted March 3.

Tex., Belton.-Bell County Road Dist. No. 16 voted \$4000 bonds to construct roads. Address County Comms.

Tex., Bryan.-Brazos county, Bryan Dist., voted \$400,000 bonds to construct roads. J. Moloney, County Judge. (Lately noted.)

Tex., Decatur.-City is reported to vote on \$7000 street and refunding bonds. Address The Mayor.

Tex., Eastland.-Eastland County Comms. let contract to improve roads.

Tex., Fort Worth.-Gulf, Colorado & Santa Fe Ry., F. Merritt, Ch. Engr., Galveston, reported to construct paving at cost of \$6621.

Tex., Galveston.-Gulf, Colorado & Santa Fe Ry. will not construct paving at Galveston. (Recently incorrectly reported.)

Tex., Houston.-City will grade and pave German and Maple Sts. from Hamilton St. to intersection with International & Great Northern R. R. right of way with standard brick, vertical-fiber brick (cement filler) or vertical-fiber brick (asphalt filler); bids at office City Secy. until Mch. 12; Ben Campbell, Mayor. (See Machinery Wanted.)

Tex., Marlin.-Falls County Precinct No. 1 is reported to vote on \$500,000 bonds to construct roads. Address County Comms.

Tex., Marshall.-Harrison County Road Dist. No. 1 will soon invite bids to construct roads; surveys completed; engineer prepared specifications; \$300,000 bonds authorized. Address County Comms.

Tex., Palestine.-City Comms. will improve streets. Address The Mayor.

Tex., Sherman.-Grayson county votes Apr. 10 on \$900,000 bonds to build 200 mi. macadam and gravel roads. (Previously noted.)

Tex., Terrell.-City will improve North Rockwall Ave. from Moore Ave. to Howard St.; creosote wood blocks with concrete foundation; brick on concrete foundation; rock asphalt on concrete foundation; gravel with concrete base; gravel with crushed rock base; bitulith with concrete base; entirely graveled roadway; curb and gutter; bids at office Jule Trueheart, City Secy., until Mch. 23. (See Machinery Wanted.)

Va., Lovingson.-Nelson county, Lovingson Dist., voted \$35,000 bonds to construct 8 mi. macadamized road. Address County Comms. (Lately noted.)

Va., Pulaski.-City, E. W. Calfee, Mayor, asks bids until Mch. 20 to build about 7 mi. macadam and concrete streets; bonds lately noted; M. S. Hudgins, City Engr. (See Machinery Wanted.)

Va., Richmond.-Administrative Board let contracts (to improve county roads approaching city) in agreement with County Supvrs. and State Highway Comms.; L. Lawson of Norfolk, at \$9368.82, Cary St. Rd.

from city limits to Country Club; Betts & Boyce, Chestertown, Md., at \$8139.96, Williamsburg Rd. from city limits to Seven Pines, and at \$4404.36, Nine-Mile Rd. from city limits to Stop 19; Calvin & Gibson, Culpeper, Va., at \$14,737.62, Osborne Turnpike from city limits to Sullivan's Store; Henrico county force will improve Telegraph Turnpike from Solomon's Store to Chickahominy, for which \$13,393.76 has been appropriated; Chas. E. Bolling, City Engr.

Va., Salem.—Roanoke County, Cave Spring Dist., defeated \$90,000 bonds to construct 2 1/2 mi. roads; Chas. B. Denit, Clerk County Comms. (Noted in January.)

Va., Suffolk.—City contemplates issuing \$40,000 bonds to improve streets and sewer system. Address The Mayor.

W. Va., Charleston.—Kanawha county votes April 24 on \$315,000 bonds to construct about 15 mi. road; invites bids until March 27; A. E. Humphries, Oscar Veazey and others, Good Roads Committee.

W. Va., Charleston.—City will curb and pave 15 streets containing about 40,700 ft. curb and 71,640 sq. yds. paving; Board of Affairs receives bids until Mch. 24; G. S. Brown, City Engr., Loewenstein Bldg. (See Machinery Wanted.)

W. Va., Huntington.—City will grade, curb and pave with No. 1 vitrified brick 5th St. west from 7th to 9th Aves., 10th Ave. from 9th to 10th St. and alley between 9th and 10th Aves. from 9th to 10th St.; City Commissioners receive bids until March 22; I. A. Pollock, Commr. of Streets, Sewers, etc.; A. B. Maupin, City Engr. (See Machinery Wanted.)

SEWER CONSTRUCTION

Ala., Elba.—City, W. M. Tucker, Mayor, voted \$11,000 bonds to construct sanitary-sewer system.

Ark., McGehee.—City Council is considering ordinance authorizing expenditure of \$30,000 toward construction of sewer system. Address The Mayor.

Fla., Bradentown.—City will construct storm sewer in Broad St. from Park to Chandler, Chandler St. from Broad to west end of Chandler, and 2 alleys; W. H. Tracy, Commr. of Public Works, receives bids until Mch. 12. (See Machinery Wanted.)

Fla., Miami.—City let contract Biscayne Construction Co., Miami, to construct main sewer on 9th St. from Ave. L to river, and Manley-Stearns Construction Co. for laterals; B. H. Klyce, City Engr.

Fla., Bablo Beach.—City asks bids until Mch. 20 on lately-noted sewer and electric-light systems; includes 8265 ft. 8-in. and 5815 ft. 10-in. pipe, 8630 ft. 8-in. solipipe force main, with manholes, flush tanks, etc.; J. B. McCrary Co., Engr., Atlanta, Ga., and Jacksonville, Fla. (See Machinery Wanted.)

Ga., Jefferson.—City, Homer Hancock, Clerk, receives bids until April 19 on materials and equipment for sewer construction; includes 11,000 lin. ft. 8-in. and 2100 ft. 10-in. vitrified sewer pipe and fittings; gasoline engine; belted generator; switchboard panel; pumps, etc.; Solomon-Norcross Co., Engr., Atlanta, Ga. (See Machinery Wanted.)

Md., Baltimore.—City will construct storm-water drains, Contract No. 43; 4650 lin. ft. 30 to 42-in. masonry drains, 8725 lin. ft. 12 to 24-in. vitrified pipe drains and 2230 lin. ft. 12 to 18-in. inlet connections, 20 manholes, 90 inlets; Board of Awards receives bids until Mch. 17; Chas. England, Chrmn. Sewerage Com. (See Machinery Wanted.)

Miss., Meridian.—City contemplates voting on \$30,000 sewer and street bonds. Address The Mayor.

Miss., Okolona.—City has plans by Frank L. Wilcox, Syndicate Trust Bldg., St. Louis, Mo., for sewer system; voted \$58,000 bonds; J. H. Davis, Town Clerk. (Lately noted.)

Mo., Kennett.—City voted \$7000 bonds to complete sewer system. Address The Mayor.

N. C., Warrenton.—Town Comms. have report from Gilbert C. White, Engr., Charlotte, N. C., for sewer system and water-works; estimated cost, \$50,000. (See Water-works.)

Okla., Chelsea.—City let contract at \$28,465 to construct sewers. Address The Mayor.

Okla., Drumright.—City will construct lately-noted sewers; bond issue \$20,000; receive bids in about 2 weeks. Address The Mayor. (See Machinery Wanted.)

Okla., Tulsa.—City will construct sanitary sewer system with inlets, manholes, etc., in Sewer Dist. Nos. 97 and 55; interior diam. 8 in.; bids at office City Auditor until Mch. 15; T. C. Hughes, City Engr. (See Machinery Wanted.)

S. C., Estill.—City placed materials contracts and has begun construction of sewer improvements; cost \$9500; J. B. McCrary Co., Engr., Atlanta, Ga. (Lately noted.)

S. C., Manning.—City is having plans prepared for sewer and water-works construction; cost \$40,000; bids to be asked. Address The Mayor.

S. C., Winnsboro.—City votes March 29 on \$80,000 bonds to construct sewer system and water-works. Address The Mayor.

Tenn., Nashville.—City engineering department will prepare plans to extend sewer system during year; expend about \$20,000; W. W. Southgate, City Engr.

Tex., Hillsboro.—City votes Apr. 6 on \$5000 bonds to construct sewers; M. W. Lovell, Mayor.

Tex., Texarkana.—City let contract W. T. Jordan, Texarkana, at \$12,817.86 to construct sewer in Rose Hill Sewer Dist. No. 3.

Va., Suffolk.—City contemplates issuing \$40,000 bonds to improve sewers and streets. Address The Mayor.

W. Va., Huntington.—City will construct sewer in 17th St., 22d St. and various alleys; 10 and 12-in. vitrified sewer tile; City Commissioners receive bids until March 22; I. A. Pollock, Commr. of Streets, Sewers, etc.; A. B. Maupin, City Engr. (See Machinery Wanted.)

TELEPHONE SYSTEMS

Fla., Wellborn.—Little River Telephone Co., W. C. Jernigan, Prest. (lately noted inceptd., capital stock \$3000), acquired Wellborn Telephone Co.'s plant; has about 80 mi. rural lines; will make extensions; has purchased materials and supplies.

Ky., Lexington.—Fayette Home Telephone Co., Church and Upper Sts., will reconstruct and extend telephone system; M. S. Taylor, Engr.

Ky., Ludlow.—City invites bids until March 18 for franchise for telephone and telegraph system; W. B. Cullen, City Clerk. (See Machinery Wanted.)

Ky., Mt. Sterling.—Cumberland Telephone & Telegraph Co. (main office, Louisville, Ky.) is reported to improve telephone system.

N. C., Nashville.—Interurban Telephone Co., capital stock \$30,000, inceptd. by L. L. Davenport, B. J. Downey, J. Henry Odom and others.

Tenn., Chattanooga.—Cumberland Telephone & Telegraph Co. (main office, Louisville, Ky.) is reported to expend \$35,000 to reconstruct Walden's Ridge telephone system and erect exchange with switchboard for 600 telephones; also improve system on Lookout Mountain and in Alton Park.

Tex., Ennis.—Independent Telephone Co. is reported to expend \$30,000 for improvements to local plant and lines.

Tex., Nacogdoches.—Procella Telephone Co. inceptd. by G. A. Blount, E. H. Blount and Frank Sharp, Jr.

TEXTILE MILLS

Ga., Macon.—Cotton Goods.—Bibb Mfg. Co. let contract to Gallivan Building Co., Greenville, S. C., to erect \$20,000 additional building; invest \$40,000 for machinery, etc. (Lately noted.)

N. C., Charlotte.—Towels, etc.—Savona Mfg. Co. has plans and specifications by Lockwood, Greene & Co., Boston, Mass., and Atlanta, Ga., for construction 1-story 200x128-ft. standard mill construction building; will install machinery to weave towels, napkins, etc.; electric power; Fiske-Carter Construction Co., Charlotte, Greenville, S. C., and Fitchburg, Mass., has building contract. (Lately incompletely noted.)

Okla., Muskogee.—Cotton Goods.—H. W. Fairbanks, Archt.-Engr. for textile mills, Dallas, Tex., is reported interested with Muskogee capitalists in plan to build cotton mill.

Tenn., Memphis.—Cotton Goods.—Business Men's Club plans organization \$500,000 company to build cotton mill.

W. Va., Philippi.—Woolen Blankets.—Philippi Woolen Mills Co., capital stock \$25,000, inceptd. by W. L. Fordyce, Albert G. Jenkins, John A. White, L. D. Gall and W. D. Corder; will organize to establish mill. (Mr. Fordyce and associates lately noted planning to organize company, install 10-loom equipment, etc.)

WATER-POWER DEVELOPMENTS

Ga., Valdosta.—South Georgia Power Co., Frank Roberts in charge, is reported as having plans and specifications for construction of hydro-electric plant on Withlacoochee

River, 4 mi. from Valdosta; develop electricity for transmission to Valdosta, Thomasville, Quitman, Camilla, etc. (Previously noted inceptd. with authorized capital \$2,500,000, etc.)

N. C., Morgantown.—H. L. Millner, Engr., completed plans to construct dam and power-house developing 6000 H. P. on Catawba River and 400 H. P. on Henry River; proposes transmitting electricity to Morgantown, Drexel, Valdese and Connelly Springs. (Previously noted interested in proposed hydro-electric plant.)

Okla., Tulsa.—Oklahoma Spring Water & Power Co., Box 723, capital \$10,000, inceptd. by L. L. Hutchinson and others; officers not yet elected; will install turbines, dynamos, 60 mi. cypress water mains, water pumps; date of opening machinery bids not set. See Machinery Wanted.)

WATER-WORKS

Ala., Elba.—City, W. M. Tucker, Mayor, voted \$5500 bonds to extend water mains.

Ark., McGehee.—City Council is considering ordinance authorizing expenditure of \$40,000 to purchase auxiliary machinery and pumps for water-works. Address The Mayor.

Fla., Bonifay.—Bonifay Light & Water Co., A. L. Byrd, Engr., postponed (indefinitely) date of receiving bids for distributing system. (Previously noted to cost \$3000, with bids to be opened March 1.)

Fla., Largo.—City voted \$20,000 bonds for water-works. Address The Mayor.

Fla., Largo.—City voted \$20,000 bonds for water-works. Address The Mayor.

Fla., Tarpon Springs.—City let contract R. D. Cole Co. of Newnan, Ga., at \$2780 to build 75,000-gal. steel water tank. (Lately noted.)

Ga., Alma.—City voted lately-noted \$15,000 bonds for water-works construction. Address W. L. Thompson.

Ga., Jefferson.—City, Homer Hancock, Clerk, receives bids until April 19 on materials and equipment for proposed water-works and sewer construction; includes 150 tons 6 and 8-in. cast-iron pipe, hydrants, valves, filter, tanks, gasoline engine, pumps, etc.; Solomon-Norcross Co., Engr., Atlanta, Ga. (See Machinery Wanted.)

Ga., Mauk.—City is reported to have voted Mch. 5 on \$2000 water bonds. Address The Mayor.

Ky., Covington.—City will construct emergency water mains across Licking River; will sell bonds; H. G. Meiners, City Engr.

Ky., Hodgenville.—City let contract J. W. and A. Snyder of Taylorsville at \$14,300 to construct water-works.

Ky., Louisville.—Louisville Water Co. plans water-works improvements costing \$900,000; to include \$335,000 pumping station with pumping capacity 30,000,000 gals., \$153,000 pump main from river, \$100,000 distributing main, and pipe extensions, meters, etc., costing \$96,000; plans by James B. Wilson, Ch. Engr.

Md., Hagerstown.—Washington County Water Co. will build reservoir on South Mountain to have capacity of about 400,000 gals.; estimated cost \$300,000.

Miss., Vicksburg.—City, A. M. Paxton, Clerk, votes Mch. 23 on continuance of building water system or purchase of existing plant owned by Vicksburg Water-Works Co. (Previously noted.)

N. C., Black Mountain.—City contemplates improving water-works. Address The Mayor.

N. C., Warrenton.—Town Comms. have report from Gilbert C. White, Engr., Charlotte, N. C., for water-works and sewer system; submitted 2 plans, one to obtain water from deep well not less than 500 ft. deep, and other to secure water from 3 springs near city; both plans contemplate emergency high-pressure pumps; estimated cost, \$50,000; probably will vote on bonds.

S. C., Anderson.—Southern Public Utilities Co., H. A. Orr, Res. Mgr., let contract W. W. Johnson to cement basin of reservoir; about 325 cu. yds. concrete work; estimated cost \$2500. (Lately noted.)

S. C., Estill.—City placed materials contracts and has begun construction of water-works; cost \$12,500; J. B. McCrary Co., Engr., Atlanta, Ga. (Lately noted.)

S. C., Orangeburg.—City is considering \$20,000 bond issue for water-works and electric-light plant. Address The Mayor.

S. C., Manning.—City is having plans prepared for water-works and sewer construction; cost \$40,000; will ask bids. Address The Mayor.

S. C., Winnsboro.—City votes March 29 on \$80,000 bonds to construct water-works and sewer system. Address The Mayor.

Tex., Hillsboro.—City votes Apr. 6 on \$5000 additional water-works bonds; M. W. Lovell, Mayor.

Tex., Nacona.—City will issue \$3500 bonds for previously-noted water-works extension. Address W. T. Russell.

Tex., Vinton.—Vinton Ice, Light & Water Co. organized with \$20,000 capital stock. (See Ice and Cold-Storage Plants.)

Tex., Ozona.—Ozona Improvement Co., Frank T. Friend, Mgr., will install equipment; contract placed; lately noted. (See Electric Plants.)

Va., Claremont.—Claremont Water-Works, capital \$10,000, inceptd. to construct water-works; Dan Stone, Prest.; W. H. Costenbader, Secy.

WOODWORKING PLANTS

Ala., Birmingham.—Staves and Heading.—W. M. Drennen, care of Drennen Co., 2001 2d Ave., contemplates installing plant to manufacture barrel heads and staves from pine; also hardwood barrel staves; will need machinery. (See Machinery Wanted.)

Ark., Blytheville.—Staves and Heading.—Geo. A. Booser of Corning, Ark., is reported to build stave and heading mill.

Ark., Pine Bluff.—Hoops.—B. R. Waite of Muncie, Ind., is reported as contemplating establishment of hoop factory.

Ark., Pine Bluff.—Box Shooks, etc.—Pine Bluff Lumber & Box Co., Edgar Brewster, Prest., present address, Cllo, Ark., will operate plant with daily capacity 30,000 ft. hardwood flooring and box shooks; lease equipped building. (See Lumber Manufacturing.)

Fla., Clearwater.—Cabinets, etc.—C. W. Hicks is interested in proposed establishment of cabinet and novelty factory.

Md., Hancock.—Cooperage.—M. A. Dillon will rebuild plant lately noted burned; concrete and brick building, with galvanized roofing; erection by owner.

N. C., Troutmans.—Furniture.—A. S. Alley, C. H. Brown and C. L. Clark are promoting establishment of furniture factory.

Tenn., Morristown.—Furniture.—Weller-Foard Co., H. M. Weller, Prest.-Treas., placed order for equipment for lately-noted plant to manufacture master craft furniture; use rented buildings; W. A. Foard, V.-P.; Nelson G. Weller, Secy.

Va., Clifton Forge.—Bungs.—Dixie Lumber Co. contemplates installing machinery to add bung manufacture to present manufacture of mill work and building materials. (See Machinery Wanted.)

FIRE DAMAGE

Ala., Birmingham.—W. C. Smith's residence at 2116 Oak Ave.; loss \$3600.

Ala., Decatur.—Lynnville Mill & Elevator Co.'s flour mill and grain elevator; estimated loss, \$100,000.

Ark., Fort Smith.—Fort Smith Hospital, owned by Dr. J. E. Ludeau; loss \$25,000.

Ala., Gadsden.—F. B. Ray's residence in East Gadsden; estimated loss \$3000.

Ala., Paint Rock.—C. C. Keel's store; loss \$4000.

Ark., Dardanelle.—George A. Harmon's business building.

Ark., Jonesboro.—J. S. Linville's hotel and store and J. P. Glover's grocery and restaurant at Big Bay.

Ark., Russellville.—Lee Hamilton's residence, loss \$4000; Dr. L. D. Berryman's residence, loss \$4000 to \$5000.

D. C., Washington.—Havener Baking Co.'s bakery at 460-470 C St. N. W.; estimated loss \$11,000.

Fla., Boca Grande.—Boca Grande Mercantile Co.'s store; loss \$10,000.

Fla., Daytona.—City Hotel at Orange and Palmetto Aves., owned by H. C. F. and H. Dohm; loss several thousand dollars.

Ga., Sparta.—E. L. Makemson's store; J. S. Laramore's store; Mrs. C. J. Andrew's pressing establishment.

Ky., Louisville.—Geo. C. Blackman's residence at 2639 Virginia Ave.; loss \$3000.

Ky., Louisville.—Schulman & Rosenthal's skirt factory at 127-129 S. 5th St.; estimated loss \$20,000.

Ky., Mt. Sterling.—Mary Biggestaff's residence; loss \$5000.

La., Morgan City.—Offices of Drs. Bernard & Wilson; loss \$3000.

La., Shreveport.—Building owned by W. Thos. Tooley at 2060 Texas Ave. and occupied by Mr. Tooley's brick and concrete works, Southern Welding Co.'s plant and City Mfg. Co.'s planer, screen and frame factory; estimated loss on building, \$15,000, and on brick and concrete works, \$2300.

Md., Annapolis.—Bay Ridge Hotel at Bay Ridge, near Annapolis, occupied by George R. Buffham.

Miss., Crawford.—W. S. Turner's residence; loss \$15,000.

Miss., Hermannville.—Postoffice; B. B. Forner's store, loss \$6000; J. Nassar & Bro.'s building, loss \$7000.

Mo., St. Louis.—Imperial Oil Co.'s building at 202 N. Levee and owned by Mrs. Sophia Chappell, 5780 McPherson Ave.; loss \$17,000.

Mo., Warrensburg.—Warrensburg State Normal School; loss about \$300,000. Address Board of Regents.

N. C., Asheville.—P. G. Bowman's residence, Strawberry Hill.

N. C., Edenton.—A. Nyam's store on Main St.; building occupied by Badham Bros. and owned by Mrs. I. N. Loftin, Elizabeth City, N. C.; loss \$10,000.

N. C., Greenville.—A. B. Hudson's residence, barn and other buildings; loss \$8000.

Okla., Ardmore.—Mrs. A. J. Chapman's building; T. K. Kearney's building; loss \$30,000.

Okla., Chickasha.—Apache Cotton Oil & Mfg. Co.'s plant.

S. C., Greenville.—Poe Mill Baptist Church; loss \$10,000. Address The Pastor.

Tenn., Carters Creek.—Henry Thompson's residence; loss \$4000.

Tenn., Memphis.—Carithers Ewing's residence on Madison Ave.

Tenn., Memphis.—Three buildings at 205-09 11 S. Main St., owned by Napoleon Hill estate and occupied by People's Furniture Co.,

Cole Paint & Glass Co. and Stewart-Jones Furniture Co.; loss \$25,000.

Tex., Claude.—Warner Building; loss \$30,000.

Tex., De Kalb.—M. N. Arnold's store at Hodgeson; loss about \$12,000.

Tex., Marlin.—Maybell Inn, owned by Mrs. T. B. Ellsberry; loss about \$13,000.

Tex., Brownwood.—Buildings owned by R. M. & Arthur Low; loss \$5000.

Tex., Marlin.—Building owned by Sam Bykowski, Detroit, Mich.

Tex., Powell.—J. B. Towns' store; loss \$5000.

Tex., Iola.—State Bank building, R. E. L. Upchurch, Prest.

Tex., Taylor.—Ed R. Hague's barn, stable and silo; loss \$7000 to \$9000.

Tex., Thorndale.—Dr. L. L. Lee's residence; loss about \$3000.

Tex., Waco.—Building owned by Tom Padgett and occupied by Ed Kindler.

Va., Cherrydale.—Robert Shrieve's residence.

Va., Hillsboro.—Bell & Cummings' store.

Va., Mathews.—Mathews High School; loss \$10,500. Address The Mayor.

Va., Pulaski.—Allen B. Hall's residence.

W. Va., Elm Grove.—Cecil Lumber Co.'s plant; loss \$20,000.

W. Va., Slanesville.—G. H. Chapman's store, dwelling and outbuildings; loss \$4000.

W. Va., Wheeling.—Masonic Scottish Rite Cathedral; loss \$100,000.

W. Va., Williamson.—Williamson Ice & Light Co.'s plant, estimated loss \$50,000; Williamson Wagon Works, loss \$5000.

Miss., Meridian.—Knights of Pythias plan to erect building on 5th St.; cost \$25,000 to \$30,000; C. T. Butler, Past Grand Chancellor.

Okla., Krebs.—I. O. O. F. and A. F. and A. M. are reported to erect lodge building; 2 stories; brick; cost about \$5000.

Okla., Lehigh.—I. O. O. F. will receive bids until Mch. 18 to furnish material and erect theater and lodge building; plans and specifications at banks in Lehigh and Ed. J. Peters, Archt., Shawnee, Okla.; Lawrence Fenoglio, Secy.

Tenn., Nashville.—Negro Y. M. C. A. plans to erect building at Cedar St. and Sixth Ave.; cost \$100,000.

Tex., Wylie.—A. W. Discher is reported to erect business and lodge building. (See Stores.)

W. Va., Wheeling.—Scottish Rite Masons will rebuild cathedral reported damaged by fire at loss of \$100,000; Dr. J. W. Morris may be able to furnish information.

BANK AND OFFICE

Ala., Birmingham.—American Trust & Savings Bank has plans by Wm. Leslie Welton, Birmingham, for additions and alterations to bank building at cost of \$25,000; materials include metal doors, windows and glass, marble, face brick, etc.

Ala., Birmingham.—Camp Transfer & Warehouse Co. will erect offices, etc. (See Warehouses.)

Fla., West Palm Beach.—W. I. Metcalf is having plans prepared for building for offices, etc. (See Association and Fraternal.)

Ga., Augusta.—Pilgrim Life Insurance Co. has plans to erect office building at Marbury and Gwinett Sts.; 3 stories; cost \$30,000.

Ga., Savannah.—American Bank & Trust Co. is having plans prepared by Alfred C. Bosson, 366 5th Ave., New York, and Edw. W. Young, Savannah, for building at Bay and Drayton Sts.; 5 stories; 60x90 ft.; semi-fireproof; built-up roofing; marble and brick front; 2 elevators; steam heat; cost \$100,000 without mechanical equipment; estimates due Apr. 1. (Lately noted.)

Md., Baltimore.—Harry E. Karr, representative, 1301-3 Fidelity Bldg., is having tentative plans prepared by Parker, Thomas & Rice, Union Trust Bldg., Baltimore, for office building at Lexington and Liberty Sts.; reported to be 22 stories; probably stone or marble base; upper stories brick; 84.6x100 ft. (Lately noted.)

Okla., Tulsa.—A. F. Ault is reported to erect business and office building. (See Stores.)

Tenn., Jonesboro.—First National Bank will erect bank building; 2x4x4 ft.; fireproof; tin roof; steam heat; electric lighting; cost \$6000; Chas. Mitchell, Archt.; no contract; construction under supervision of Building Comm., W. E. May, Chrmn. (Lately noted.)

Tex., Blue Ridge.—Guaranty State Bank will erect bank and 2-story building; John Tulloch, Archt., Sherman, Tex.; bids opened Mch. 4.

Tex., San Antonio.—National Bank of Commerce is reported to erect building at Commerce and Soledad Sts.; details not determined.

Va., Norfolk.—National Bank of Commerce will erect additional story to building for lunchrooms for Chamber of Commerce; main room 33x46 ft.; 3 smaller rooms; Louis R. Moss, Archt., Norfolk.

CHURCHES

Ark., Little Rock.—First Congregational Church will finish building at 901 State St.; A. E. Luffborough is interested.

D. C., Washington.—St. Andrew's Episcopal Church, 14th and Corcoran Sts., Rev. Jay J. Dimon, pastor, 1736 Q St., is having plans prepared for building by Chas. W. Bolton & Son, Witherspoon Bldg., Philadelphia, Pa. (Lately noted.)

Fla., Clearwater.—Christian church, W. A. Cameron, elder, Largo, Fla., will not erect building until fall. (Lately noted.)

Ky., Paducah.—Grace Episcopal Church will erect addition to parish-house and Sunday-school; 20x50 ft.; W. L. Brainerd, Archt., Paducah.

Md., Baltimore.—Francis E. Tormey, 812 Newington Ave., Baltimore, is preparing plans for church; reported cost about \$300,000.

N. C., Goldsboro.—Christian Church will erect building on Ashe St.; brick. Address The Pastor.

N. C., Washington.—First Baptist Church receives bids through J. M. McMichael,

Archt., Charlotte, N. C., until March 12 for building; 82x105 ft.; brick; leaded glass windows.

Okla., Norman.—Methodist Episcopal Church plans to erect building; cost \$10,000. Address The Pastor.

S. C., Columbia.—Shandon M. E. Church has plans by Geo. E. Lafaye, Columbia, for building; brick; cost \$10,000; contract let Mch. 15. (Lately noted.)

S. C., Columbia.—House Peace Congregation will erect synagogue at 1316 Park St.; cost \$3500. Address The Rabbi.

S. C., Greenville.—Poe Mill Baptist Church will erect building to replace structure noted damaged by fire at loss of \$10,000; F. W. Poe, Prest. of Poe Mfg. Co., is interested.

Tex., El Paso.—Calvary Houston Square Baptist Church has plans by O. L. Thorndom & Co., El Paso, for building; 3 stories; brick; steel frame; auditorium to seat 1500; cost \$75,000; Rev. O. J. Wade, Pastor.

Tex., Galveston.—Evangelical Lutheran congregation will erect building. Address The Pastor.

Va., Norfolk.—Freemason Street Baptist Church has plans by Louis R. Moss, Norfolk, for addition; 3 stories; 18 classrooms; brick; bids opened Mch. 12.

Va., Norfolk.—First Calvary Baptist Church, Rev. P. J. Wallace, pastor, has plans by Mitchell & Wilcox, Paul-Ghe- Greenwood Bldg., Norfolk, to erect church and Sunday-school building; 75x75 ft.; ordinary construction; composition roof; steam heat; electric lights; cost \$50,000; bids opened Mch. 25. (Lately noted.)

Va., Norfolk.—Epworth M. E. Church has plans by Mitchell & Wilcox, Paul-Ghe- Greenwood Bldg., Norfolk, for Sunday-school building; 70x70 ft.; ordinary construction; tin roof; steam heat; electric lights; cost \$25,000; begins construction April 1. (Lately noted.)

CITY AND COUNTY

Ala., Huntsville.—Library.—City will erect Carnegie library; J. D. Humphrey, Mayor.

Fla., Largo.—City Hall.—City voted \$4000 for city hall. Address The Mayor.

Fla., Tampa.—Jail.—Hillsboro County Commissioners are having tentative plans prepared by Pauly Jail Building Co., St. Louis, for proposed jail.

Fla., Tarpon Springs.—City Hall.—City is having plans prepared by J. B. McCrary Co., Atlanta, for city hall; 60x90 ft.; fireproof; tile roof; bids opened March 16; cost \$12,000 without mechanical equipment.

Miss., Vicksburg.—Library.—City is requesting bids to erect Carnegie library; A. M. Paxton, City Clerk. (Previously noted.)

Mo., Kansas City.—Library.—Board of Education plans to erect addition to public library; frontage 48 ft.; 3 stories.

N. C., Halifax.—Jail.—Halifax County Commissioners, W. R. Harvey, Chrmn., Littleton, N. C., receive bids until Mch. 15 to erect jail; separate bids for building, jail work and heating; plans and specifications at office of Mr. Harvey, Littleton, and Frank B. Simpson, Archt., Home Bldg., Raleigh, N. C.

N. C., Wilkesboro.—Home.—D. C. Sebastian, Chrmn. Board of Wilkes County Commrs., receives bids until April 6 for material and erection complete of building on County Home Farm, about 2 mi. from railroad station of North Wilkesboro on Southern Ry.; plans and specifications by Hook & Rogers, Archts., Charlotte, N. C., on file at office of Clerk of Board, Wilkesboro; for further information address Mr. Sebastian or H. C. Caviness, County Atty., Wilkesboro.

S. C., Ridgeland.—Jail.—Jasper County Commrs. receive bids until Apr. 6 to erect courthouse and jail. (See Courthouses.)

Tex., Dallas.—Recreation.—Park Board will soon let contract to erect neighborhood house at Trinity Play Park; cost about \$18,000.

Tex., Fort Worth.—Fire Stations.—City plans to erect 2 fire stations at 16th St. and Homan Ave. and North and Penn Sts.; cost \$32,000. Address The Mayor.

Tex., Paris.—Jail.—Lamar county does not contemplate erecting jail, as recently reported.

W. Va., Charleston.—Library.—City is considering voting in May on \$30,000 bonds to purchase site for proposed \$45,000 Carnegie library. Address The Mayor.

W. Va., Williamson.—Municipal.—City is having plans prepared by Verus T. Ritter, Huntington, for proposed municipal building.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

D. C., Washington.—F. D. McAuliff, 500 D St. S. E., will erect 2 apartment-houses. (See Dwellings.)

D. C., Washington.—Jos. B. Colburn, 1204 G St. N. W., will erect 6-story apartment-house at 718 18th St. N. W.

D. C., Washington.—Wm. J. Kehoe is reported having plans prepared by Geo. N. Bay, care Clarke Waggaman, 1211 Connecticut Ave. N. W., Washington, for apartment-house at New Hampshire Ave. and U Sts. N. W.; 7 stories; cost \$500,000.

D. C., Washington.—J. J. Moebis, 817 G St. N. W., is preparing plans for apartment-house on Vermont Ave. between K and L Sts. N. W.; details not determined; reported to be 8 stories; cost \$400,000.

D. C., Washington.—Franklin T. Sanner will erect apartment-house at 18th St. and Columbia Rd.; 3 stories; 57x58 ft.; brick, stone and steel; tile roof; steam heat; electric lights; cost \$25,000; B. Stanley Simmons, Archt., 1340 New York Ave. N. W., Washington.

D. C., Washington.—Henry Wahl, 647 H St. N. E., has plans by Julius Wenig, 721 10th St. N. W., Washington, for five 2-story brick apartments at 625-27 9th St. N. E., and 1-story garage; latter 12.4x20 ft.; former 20x60 ft.; tin roof; hot-water heat; electric lights; cost \$7000; construction by owner.

Fla., Miami.—C. Arthur Peters will erect store and apartment-house. (See Stores.)

Ga., Columbus.—Arthur Bussey is reported to erect apartment-house on 3d Ave.; 5 stories; electricity and gas; electric elevator; 20 apartments.

Ga., Savannah.—Wm. M. Davidson will erect apartment-house on Park Ave.; 3 or 4 stories; brick or stone; cost \$25,000 to \$50,000; completion by Oct. 1.

Ky., Louisville.—J. W. Raley will erect brick apartment-house at 1128 Cherokee Rd.; cost \$15,000.

La., New Orleans.—I. D. Heymann has plans by Nathan Kohman, New Orleans, for frame and stucco duplex apartment.

La., New Orleans.—Mrs. B. Bodenheimer has plans by B. F. Berry, New Orleans, for frame and stucco duplex apartment-house.

Mo., St. Louis.—E. H. Ronsick will erect apartment-house on Margaretta Ave.

Mo., St. Louis.—April Investment Co. will erect stores and flats. (See Stores.)

Mo., St. Louis.—Jos. Farrell will erect store and flat building at Wherry and Devonshire Aves.

Mo., St. Louis.—Chas. Boehne will erect 2-story flat at 4248-50 Linton St.; cost \$5000.

Mo., St. Louis.—Girard Realty & Building Co. will erect 4-family apartment-house on Lafayette Ave.; sun parlors and sleeping porches.

Mo., St. Louis.—Sarama Investment Co. will erect stores and apartments. (See Stores.)

Mo., St. Louis.—H. Grover will erect 2-story flat at 4740 St. Louis St.; cost \$4500.

Mo., St. Louis.—E. H. Pipe Realty Co. will erect two 2-story tenement-houses; cost \$5800; construction by owner.

Mo., St. Louis.—Mrs. Minnie Voegtli will erect single flat on Natural Bridge Ave.

Mo., St. Louis.—Theo. Degenhardt will erect two 2-story tenements at 4177-79 Blaine St.; cost \$5400; construction by owner.

Mo., St. Louis.—Wm. H. Beerman will erect 5 and 6-room flat on Harris Ave.

Mo., St. Louis.—R. Hamilton will erect 2-story tenement-house at 2911-13 Harper St.; cost \$5000; construction by owner.

Mo., St. Louis.—Charles Michael will erect 2-story tenement-house at 3539 Caroline St.; cost \$4000; construction by owner.

S. C., Columbia.—J. Fuller Lyon will erect 10-room flat on Washington St.

Tex., Houston.—W. Mendlowitz, Seguin, Tex., receives bids at office of Finger & Bailey, Archts., Houston, until Mch. 15 to erect 2-story-and-basement apartment-house.

W. Va., Charleston.—De Witt Gallaher, Kanawha Banking & Trust Co. Bldg., is having plans prepared for 3-story semi-fireproof apartment-house at 14 Broad St.; 60 rooms.

ASSOCIATION AND FRATERNAL

Fla., Mayo.—Masonic-Pythian Investment Co. is reported to erect building to replace structure lately noted damaged by fire at loss of \$10,000; 2 stories; brick.

Fla., West Palm Beach.—W. I. Metcalf is having plans prepared by G. L. Pfeiffer, Lemon City, Fla., for building; 3 stories; steel and reinforced concrete; stucco exterior; foundation to support additional story; lower floor for postoffice, with loggia 15x20 ft.; lobby 20x60 ft.; 13 offices on second floor; lodgeroom 53x56 ft.; banquet hall 16x53 ft.; lockers and dressing-rooms on upper floor.

Ky., Pineville.—Jr. O. U. A. M. is reported to erect 2-story brick building.

Md., Baltimore.—Young Women's Christian Association, Highlandtown branch, will erect building at Clinton St. and Eastern Ave., Highlandtown; Mrs. W. H. Morriss, Chrmn., Committee of Management, 1904 Mt. Royal Ter.; building a gift, donor's name withheld.

COURTHOUSES

Md., Prince Frederick.—Calvert County Comms. receive bids until Mch. 27 to erect courthouse; 70x80 ft.; mill construction; tin roof; cost about \$25,000; T. Kent Roberts, Archt., 921 17th St. N. W., Washington, D. C. (Lately noted.)

S. C., Ridgeland.—Jasper County Comms. receive bids until Apr. 6 at office of Clerk of Court to erect courthouse and jail; plans and specifications at office of John P. Wise, Atty., Ridgeland, Builders' Exchange, Atlanta, and Wm. A. Edwards, Archt., 633 Candler Bldg., Atlanta.

Tenn., Camden.—Benton county receives bids until Mch. 29 through W. D. Cooper, Chrmn. of Building Com., to erect courthouse; plans and specifications at office of County Court Clerk, Camden, and Edward Dougherty, Archt., 1033 Candler Bldg., Atlanta, Ga. (Lately noted.)

Tenn., Johnson City.—Washington county will probably erect courthouse; cost \$50,000; details not decided. Address County Commissioners.

DWELLINGS

D. C., Washington.—F. D. McAuliff, 530 D St. S. E., will erect apartment-house at 811 L St. S. E. and 144 D St. S. E., and dwellings at 45 V St. N. W. and 2032-36 Lincoln Rd.; cost \$12,000; plans and construction by owner.

D. C., Washington.—John Herath, 2221 Prout St. S. E., will erect 2 dwellings at 1535-37 25th St. S. E.; 2 stories; 16.6x42 ft.; brick; tin roof; hot-water heat; cost \$3,200.

D. C., Washington.—J. S. Gruver, Union Trust Bldg., has plans by Geo. T. Santnyers, 1406 S St. N. W., Washington, for 5 dwellings at 1109-17 Allison St. N. W.; 2 stories; 20x32 ft.; brick; tin roof; hot-water heat; electric lights; cost \$15,000; also dwelling at 5302 14th St. N. W.; 2 stories; 25x29 ft.; frame; slate roof; hot-water heat; cost \$5,000; construction by owner.

D. C., Washington.—L. E. Breuninger, 3208 19th St. N. W., has plans by Henry L. Breuninger, 3208 19th St. N. W., Washington, for 2 dwellings at 1639-41 Harvard St. N. W.; 2 and 3 stories; 23x37 and 24x42 ft.; brick; slag roof; hot-water heat; electric lights; cost \$15,000.

D. C., Washington.—Milton D. Campbell, 1410 H St. N. W., will erect 4 dwellings on Fairmont St. near Georgia Ave.; 2 stories.

D. C., Washington.—Middaugh & Shannon, Woodward Bldg., prepared plans for and will erect 7 dwellings at 4000-4012 5th St. N. W.; 2 stories, 20x32 ft.; brick; tin roof, hot-water heat; electric light; cost \$27,000.

D. C., Washington.—W. Kline, 1436 Park Rd. N. W., will erect dwelling at 1439 Montague St. N. W.; 2 stories; 26x33.6 ft.; tile; slate roof; hot-water heat; electric lights; cost \$7,000; plans and construction by owner.

D. C., Washington.—W. C. and A. N. Miller, 911 H St., have plans by B. Frank Meyers, 724 Bond Bldg., Washington, for dwelling at 3210 34th St. N. W.; 2½ stories; 28x31 ft.; frame; hot-water heat; electric light; cost about \$5,000; construction by owners.

Fla., Clearwater.—A. W. Underwood is having plans prepared by Tallmadge & Watson, 189 Madison St., Chicago, for dwelling.

Fla., Jacksonville.—Broun Realty Co., 403 St. James Bldg., will erect 2-story, 7-room and 1-story, 6-room dwelling on 6th St., Springfield; frame; metal shingle and composition roof; cost \$7,000; plans and construction by owner.

Fla., St. Petersburg.—Andrew Rogers has plans by Ferdon & Feltham, American Bank & Trust Bldg., St. Petersburg, for residence; 1½ stories; frame; cost \$3,000.

Ga., Atlanta.—J. B. Danfel will erect brick veneer dwelling at 117-21 Ponce de Leon Pl.; cost \$5,000; day labor.

Ga., Atlanta.—Elliott Dunn will erect 8 one-story frame dwellings on Miller Ave.; cost \$6,400; day labor.

Ga., Atlanta.—William's Sons will erect 4 frame dwellings at Mayson and Turner Ave.; cost \$3,000; day labor.

Ga., Atlanta.—John M. Geuge will erect 2 one-story frame dwellings at 72-76 Thelma St.; cost \$3,500.

Ga., Atlanta.—Elliott Dunn will erect 8 one-story frame dwellings; cost \$6,400; day labor.

Ga., Atlanta.—R. M. Abernathy & Co. will erect frame dwelling at 233 Lucile Ave.; cost \$3,000; day labor.

Ga., Atlanta.—T. H. Abbey will erect 6 one-story frame dwellings on Currier St., Forest Way and School Place; day labor; cost \$6,000.

Ga., Augusta.—Eli Mustin will erect residence.

Ga., Columbus.—E. P. Dismukes, 1515 3d Ave., has plans by Hentz & Reid, Atlanta, for residence; 8 rooms; slate roof; vapor heat; electric lights; cost about \$12,000; address the architects. (Lately noted.)

Ga., Kirkwood.—R. M. Abernathy will erect 2 dwellings in addition to 5 now under construction.

Ga., Savannah.—Thomas A. Jones will erect residence on 44th St.

La., Lake Charles.—Frank Gunn will erect 2 brick dwellings to cost \$3,500.

La., New Orleans.—E. Phelps is reported to erect residence on St. Charles Ave.

La., New Orleans.—W. L. Billet has plans by W. C. Keenan, New Orleans, for 2 frame residences; tile and composition roof.

Md., Baltimore.—O. P. Roberts, 2601 Garrison Ave., has plans by W. B. Gerwig, 600 Equitable Bldg., Baltimore, for 10 dwellings at Norfolk and Winfield Aves.; 2 stories; 15x52 ft.; brick; tin roof; steam heat; cost \$18,000; construction by owner.

Md., Baltimore.—Alert Building Co., Randolph Forrester, Prest., 224 St. Paul St., has plans by Raymond Gerwig, 2238 W. North Ave., Baltimore, for 22 dwellings at Windsor and Dukeland Aves.; 14.6x44 ft.; 2 stories; brick; slag roof; steam heat; cost \$39,000; construction by owner; will also build 15 houses on 6th St. between Clifton and Windsor Aves.; cost \$27,000.

Md., Baltimore.—Frank O. Singer, 600 Equitable Bldg., has plans by W. B. Gerwig, 600 Equitable Bldg., Baltimore, for 24 dwellings on 28th St. between Guilford Ave. and Barclay St.; 15.4x45 ft.; 2 stories; brick, tin roof; steam heat; gas and electric light; cost about \$48,000; construction by owner. (Lately noted.)

Md., Baltimore.—Chas. J. Dobler is having plans prepared by Wm. O. Sparklin and Geo. S. Childs, 502 Law Bldg., Baltimore, for dwelling at Mayfield, Harford Rd. and Erdman Ave.; 2½ stories, 32x48 ft.; brick; slate roof; steam heat; gas and electric light; cost about \$7,000; plans ready about Mch. 15.

Md., Baltimore.—Miss Ruth Johnston, 1206 John St., is reported to erect dwelling at Tremont, on Belair Rd.

Md., Baltimore.—Robt. F. Roberts, 2000 Mt. Royal Ter., has plans by Bailey & Bassett, Philadelphia, Pa., for dwelling on Charles St. Ave., Guilford; 2½ stories; 30x75 ft.; brick; slate roof; hot-water and hot-air heat; gas and electric light; also garage; 2 stories; about 20x20 ft.; brick; cost of both about \$30,000; bidders include Roland Park Co., Roland Park, Md., and Gladfelter & Chambers, 729 Roland Ave.; G. Walter Tozell, Eutaw and McCulloh Sts.; R. E. Chambers, 36th St. and Roland Ave.; E. G. Turner, 15 E. Fayette St., all of Baltimore; bids due Mch. 12.

Md., Baltimore.—John R. Olwine, 1011 E. Preston St., has plans by Stanislaus Russell, 2900 Clifton Ave., Baltimore, for 20 dwellings on Baker St., between Ashburton and Bradish Sts.; 2 stories, 14x45 ft.; brick; slag roof; hot-air heat; gas and electric light; cost about \$35,000; construction by owner.

Md., Baltimore.—Geo. Klein, 2909 Lorman St., has plans by Stanislaus Russell, 2900 Clifton Ave., Baltimore, for 28 dwellings on Bentall St., between Baker and Presbury Sts.; 2 stories, 14x50 ft.; brick; slag roof; steam heat; cost about \$40,000; construction by owner.

Md., Belmar.—C. Denarco has plans by Otto Schratke, Raspeburg, Md., for dwelling on Belair Rd.; 2½ stories, 28x32 ft.; concrete; slate roof; steam heat; gas and electric light; cost about \$12,000.

Md., Belmar.—Chas. A. Kelson, 30 N. Patterson Park Ave., Baltimore, will erect dwelling on Belair Rd.; 2½ stories, 28x35 ft.; concrete; slate roof; steam heat; gas and electric light; cost about \$4,000; architect not selected.

Md., Belmar.—Overlea Realty Co., Henry Kolb, Prest., Forest View Ave., will erect 2 dwellings on Belair Rd.; 2½ stories, 26x30 ft.; frame; slate roof; steam heat; gas and electric light; cost about \$6,000.

Md., Lutherville.—W. R. Price is having plans prepared by Stanislaus Russell, 2900 Clifton Ave., Baltimore, for dwelling; 2½ stories, 40x33 ft.; frame; slate roof; steam heat; cost about \$5,000; plans ready about Mch. 8.

Md., Mt. Airy.—Miss Corinne Bevans has plans by Speiden & Speiden, 1430 New York Ave. N. W., Washington, D. C., for dwelling; 31x39.6 ft.; 2½ stories; frame and pebble-dash; asbestos roof.

Mo., St. Louis.—Frederick F. Fulton will erect colonial residence on Berlin Ave.

Mo., St. Louis.—Fred W. Preip will erect bungalow on Kingshighway; cost \$6,500.

Mo., St. Louis.—Nat W. Ewing of Humphrey & Ewing will erect residence; 15 rooms; colonial style; cost about \$35,000; Roth & Study, Archts., International Life Bldg., St. Louis.

Mo., St. Louis.—A. M. Freund has plans by Chas. L. Thurston, St. Louis, for California bungalow; 7 rooms; hardwood finish; beamed ceilings; slate roof.

Mo., St. Louis.—Saml. Koplar will erect 2 bungalows at Sarah St. and Page Blvd. and 2 on Kingshighway; also having plans prepared for 6 additional ones.

Mo., St. Louis.—Henry Greutzemacher will erect brick and stone dwelling in Webster Park on Elm Ave.

N. C., Asheville.—Charles A. Webb is having plans prepared by Willard C. Northup, Winston-Salem, for residence in Grove Park; completion by Oct. 1.

N. C., Salisbury.—McCaless Realty Co. will erect residence; 2 stories; brick; cost \$4,000.

N. C., Winston-Salem.—J. F. Morris will erect 9-room residence on Spruce St.; cost \$6,000.

Tenn., Athens.—T. I. Magill will erect bungalow in University addition.

Tenn., Knoxville.—Cowan Rogers will erect residence; L. C. Waters, Archt., Knoxville.

Tenn., Knoxville.—C. M. Thomas will erect residence; John Ryno, Archt., Knoxville.

Tenn., Knoxville.—A. J. Walker will erect residence; John Ryno, Archt., Knoxville.

Tenn., Maryville.—E. F. Ames has plans by M. E. Parmelee for residence.

Tenn., Memphis.—J. W. Roane has plans by Broadwell & Mahan, Memphis, for bungalow; 7 rooms; hardwood interior finish; electric fixtures; cost \$5,500.

Tenn., Memphis.—Geo. Mahan, Jr., has plans by Broadwell & Mahan, Memphis, for residence; 7 rooms; hardwood interior finish; electrical fixtures; cost \$5,500.

Tenn., Memphis.—Mrs. L. R. Johnson has plans by Regan & Weller, 834 Bank of Commerce & Trust Bldg., Memphis, for dwelling; 2 stories; brick veneer; 33x52 ft.; shingle roof; hot-water heat; electric wiring and fixtures; stone trimmings; concrete sidewalks and foundation; oak floors and tile in bath; bids opened March 10. Address architects.

Tenn., Memphis.—Mrs. Katherine Jennings, 1275 Neptune St., opens bids about March 20 to erect bungalow; 33x34 ft.; ordinary construction; shingle roof; hot-air heat; electric wiring and fixtures; concrete sidewalks and foundation; stucco on exterior; stone front porch work; oak floors and tile in bath; Regan & Weller, Archts., 834 Bank of Commerce & Trust Bldg., Memphis. Address Martin Jennings, 1275 Neptune St.

Tenn., Memphis.—Walter Burke opens bids March 24 to erect dwelling; 41x53 ft.; 2 stories; brick veneer; asphalt shingle roof; hot-water heat; electric wiring and fixtures; stone trimmings; concrete foundation and sidewalks; oak floors; tile in bath; white oak interior finish; Regan & Weller, Archts., 834 Bank of Commerce & Trust Bldg., Memphis, who may be addressed.

Tex., Dallas.—M. J. Orleans will erect tile and brick residence at 2906 S. Boulevard; cost \$11,000.

Tex., Dallas.—S. E. Moss will erect two 8-room frame cottages at 3113-17 Reagan St.; cost \$5,000.

Tex., El Paso.—H. E. Cornwall will erect brick dwelling; cost \$6,500.

Tex., El Paso.—A. Schwartz receives bids through Trost & Trost Archts., 816 Mills Bldg., El Paso, until Mch. 17 to erect residence and garage; 2 stories.

Tex., El Paso.—Mayfield Building & Improvement Co. will erect brick bungalow in Mundy Heights; 28x44x30 ft.; similar structure in Cotton addition; cost \$12,650.

Tex., El Paso.—Perry-Kirkpatrick Co. will erect 8 bungalows in Franklin Heights addition; 26x29x18 ft.; cost \$12,000.

Tex., Galveston.—J. St. Mary will erect 2-story frame dwelling at 711 Ave. J; cost \$4,700.

Tex., Galveston.—Geo. N. Copley has plans by Anton F. Korn, Galveston, for residence; frame; stucco finish; slate roof; cost \$12,000.

Tex., Galveston.—Frederick A. Gross, Prest. of Gross Construction Co., Waco, Tex., will erect residence on Ave. P; concrete and tile construction.

Tex., Houston.—A. F. Neumann will erect

10-room residence at Mason and Fargo Sts.; cost \$3,000.

Tex., Marshall.—Dr. Rogers Cocke rejected all bids to erect residence and is receiving new bids; ordinary construction; terra-cotta and tile roof; cost about \$6,000; John Carpenter, Archt., Box 324, Marshall. (Previously noted.)

Tex., Temple.—G. E. McCalvey is having plans prepared by C. D. Hill & Co., Dallas, for 2-story residence; materials to include hollow tile, brick veneer; tile roof; cost \$30,000.

Va., Danville.—Mrs. W. O. Strange will erect residence to replace previously burned structure; cost \$4,500.

Va., Pulaski.—A. B. Hall will let contract about Apr. 1 to erect lately-noted residence; 10 rooms; brick; slate or metal shingle roof; steam or hot-water heat; electric lights; cost \$4,500 to \$5,000; construction to begin about May 1. (See Machinery Wanted.)

Va., Richmond.—Davis Bros. will erect brick residence on Addison St.; cost \$25,000.

Va., Richmond.—A. F. Newmann will erect 2-story frame dwelling at 3419 E. Marshall St.

Va., Richmond.—Joseph Bryan Trust (Ernest W. Farley) will erect 2-story frame dwelling at 106 Confederate Ave.; cost \$5,000.

Va., Roanoke.—W. H. Webb will erect two-story brick-cased dwelling on Orange Ave. N. W.; cost \$3,200.

Va., Roanoke.—Dr. J. T. Strickland will erect residence in Crystal Spring; brick; stone trimmings; 33 rooms, including attic and basement; cold storage, laundry, refrigerating plant; porte cochere; Spanish tile roof; promenade tile floors for balconies, terraces and piazzas; garage and servants' quarters; cost \$25,000; plans by and construction under supervision of C. H. Hinant, Roanoke. (Previously noted.)

W. Va., Huntington.—W. E. Kimball will erect 8-room brick residence at 12th Ave. and 9th St.; cost \$2,900.

W. Va., Huntington.—J. J. West will erect 2-story brick residence at 2856 3d Ave.; cost \$3,500.

W. Va., Huntington.—C. O. Harrison will erect 2 two-story brick residences at 288 and 2852 3d Ave.; cost \$7,000.

W. Va., Huntington.—E. B. Gerlach will erect residence; 7 rooms; brick; cost \$3,000.

GOVERNMENT AND STATE

Ark., Hot Springs.—Barracks.—Constructing Quartermaster receives bids until Mch. 20 to erect Hospital Corps barracks, diet kitchen and storehouse at Army and Navy General Hospital; information on application.

Fla., West Palm Beach.—Postoffice.—W. I. Metcalf is having plans prepared for building for postoffice, etc. (See Association and Fraternal.)

Tenn., Covington.—Postoffice.—Treasury Department, Oscar Wenderoth, Supervising Archt., Washington, D. C., opened bids to erect postoffice building; Geo. W. Stiles Construction Co., Rookery Bldg., Chicago, is lowest bidder. (Lately noted.)

Tex., Corpus Christi.—Postoffice.—Treasury Dept., Oscar Wenderoth, Supervising Archt., Washington, D. C., receives bids until Apr. 19 to erect complete (including mechanical equipment (except elevator) and approaches) postoffice and courthouse; drawings and specifications after Mch. 20 from custodian of site at Corpus Christi and Mr. Wenderoth, as above. (Lately noted.)

Va., Virginia Beach.—Camp.—Acting Adjutant-General W. W. Sale and Major-General Clinton L. Wright, P. O. Dept., both of Norfolk, will receive sketches from Norfolk architects only for proposed administration building at State Camp; 1½ stories; bungalow type; porches on 4 sides; mill construction; metal roof; hot-water heat; electricity from railway company; cost \$6,000 without mechanical equipment.

HOSPITALS, SANITARIUMS, ETC.

Ark., Hot Springs.—Constructing Quartermaster receives bids until Mch. 20 to erect barracks, etc., at Army and Navy General Hospital. (See Government and State.)

Fla., Tampa.—Board of Public Works has plans by David Shaw, Tampa, for nurses' home at Gordon Keller Hospital; cost \$4,500; also has \$3,000 available for erection of laundry.

La., Jennings.—Dr. Hall has plans for addition to hospital to contain operating room, sterilizing room and ward.

Md., Easton.—Emergency Hospital opened bids to erect hospital; W. A. Richmond, Moorestown, N. J., is lowest bidder at \$20;

000; plans by Guy King Co., 1513 Walnut St., Philadelphia, Pa., call for structure 118x58 ft.; semi-fireproof; slag and slate roof; low-pressure steam heat; city lighting; cement sidewalk and curb; electric elevator. (Lately noted.)

S. C., Greenville.—City is considering election on \$40,000 bonds to erect annex to city hospital. Address The Mayor.

Tenn., Nashville.—City Hospital Commission receives bids until March 15 to repair hospital damaged by fire; repairs include carpenter work, plastering, plumbing, iron and tin work, electrical work, fireproof ceiling of boiler-room, etc.; plans and specifications at City Hospital; S. J. Underwood, Chrmn.

Tex., Corsicana.—R. R. Owens, Navarro County Judge, receives bids until March 15 to erect 1-story-and-basement addition and remodeling Physicians and Surgeons Hospital building; plans and specifications at office of Ernest E. McAnelly, Archt., 1201 Southwestern Life Bldg., Dallas, and at hospital.

HOTELS

Fla., Palm Beach.—Farmers' Bank & Trust Co., West Palm Beach, Fla., is reported financing erection of hotel by Eastern capitalists.

Fla., St. Petersburg.—S. Lund has plans by Geo. Feltham of Ferdon & Feltham, American Bank & Trust Bldg., St. Petersburg, for addition to Huntington Hotel; 4 stories; 90x115 ft.; frame construction; steam heat; composition roof; electric elevator; cost \$30,000; contract on percentage basis; lately noted. (See Machinery Wanted.)

Ga., Savannah.—Savannah Hotel Co. is considering remodeling De Sota Hotel; reported cost about \$200,000; company wires Manufacturers Record: "No definite plans at this time."

Ga., Savannah.—J. B. Pound, Chattanooga, Tenn., is reported to erect 10-story annex to Hotel Savannah; 100 rooms; lower floor for stores.

Mo., Kansas City.—William B. Wilson is reported to have acquired 2 residences at Garfield Ave. and Independence Blvd., and to use same as front of hotel to be erected.

Tenn., Memphis.—Hotel Chisca opened bids to erect roof garden; Kaucher, Hodges & Co., Memphis, are lowest bidders; cost about \$15,000; Harker & Cairnes, Archts., Memphis. (Lately noted.)

MISCELLANEOUS

Ala., Birmingham.—Stable, etc.—Camp Transfer & Warehouse Co. will erect stable, etc. (See Warehouses.)

Ky., Louisville.—Gymnasium.—Trinity Council, Y. M. I., 945 Baxter Ave., will erect 1-story brick gymnasium; 48x114 ft.; cost \$12,000; J. J. Gaffney, Archt., Louisville.

Md., Baltimore.—Restaurant.—Jos. Sopher, 194 Market Pl., has plans by J. C. Spedden, 1640 Hanover St., Baltimore, for restaurant at 606 E. Baltimore St.; 3 stories. 18x65 ft.; ordinary construction; tin roof; hot-water heat; cement sidewalks; combination lighting; cost \$7,000; bids opened in a few days.

Va., Norfolk.—Lunchrooms.—National Bank of Commerce will erect additional story to building for lunchroom. (See Bank and Office.)

RAILWAY STATIONS, SHEDS, ETC.

Okla., Woodward.—Gulf, Colorado & Santa Fe R. R. Co., F. Merritt, Chief Engr., Galveston, Tex., will erect depot.

Tex., Pampa.—Gulf, Colorado & Santa Fe Ry. F. Merritt, Ch. Engr., Galveston, is reported to erect brick passenger station; cost about \$10,000.

Tex., San Antonio.—Missouri, Kansas & Texas Lines, A. M. Acheson, Ch. Engr., Dallas, is reported to have purchased through San Antonio Belt & Terminal Co. property for rights of way and site for erection of terminal buildings; buildings to include passenger depot at Durango and S. Flores Sts., freight depot, warehouse and other buildings at Durango and S. Laredo Sts.; cost of buildings, trackage, etc., about \$1,000,000. (Previously noted.)

SCHOOLS

D. C., Brookland.—Trinity College has sketches by Wm. F. Wagner, 1336 13th St. N. W., Washington, D. C., for dormitory; 3 stories; cost \$40,000; bids reported to be called in 30 days.

Fla., Clearwater.—Green Springs School Dist. votes April 3 on \$15,000 bonds to erect school. Address Dist. School Trustees. (Lately noted.)

Fla., Eagle Lake.—Eagle Lake Special Tax Dist. voted \$6000 bonds to erect school. Address Dist. School Trustees.

Fla., Fellsmere.—Board of Public Instruction has plans by F. H. Trimble, Fellsmere, for school; 2 stories and basement; brick with stucco finish; 12 classrooms; chemical laboratory and domestic-science department; voted \$25,000. (Lately noted.)

Fla., Frostproof.—City receives bids until March 19 to erect school; 2 stories and basement; brick; Spanish tile roof; furnace or gas heat; private water and lighting plants; gymnasiums, manual-training and domestic-science equipment; \$12,500 available; Willis R. Biggers, Archt., Tampa. (Lately noted.)

Fla., Lake Worth.—H. W. Lewis, Supt. of Public Instruction of Palm Beach county, West Palm Beach, Fla., receives bids until March 22 to erect school; plans and specifications at office of County Supt.

Fla., Pompano.—H. W. Lewis, Supt. Board of Public Instruction of Palm Beach County, West Palm Beach, Fla., receives bids until March 22 to erect school; plans and specifications at office of County Supt.

Fla., Homestead.—Homestead School Dist. plans to vote on \$15,000 bonds to erect additional rooms to Homestead School and erect school in Florida City; August Geiger, Archt., Miami, Fla.

Fla., Richmond.—School Board is having plans prepared by Willis R. Biggers, Franklin Square Bldg., Tampa, Fla., for school; 2 stories; brick; 5 classrooms and auditorium; composition roof; heating not determined; private water plant; contract let March 15. (Lately noted.)

Fla., Sebring.—City is having plans prepared by Wm. L. Redditt, Petteway Bldg., Tampa, Fla., for school; 2 stories; brick; 8 rooms; manual-training and domestic-science equipment; slate roof; cost \$13,000; will receive bids in about 30 days. (Lately noted.)

Fla., Tarpon Springs.—Tarpon Springs School Dist. voted \$25,000 bonds, \$18,000 to pay present indebtedness and \$7,000 for school improvements. Address Dist. School Trustees. (Lately noted.)

Fla., Tampa.—Tampa School Dist. Trustees are reported to erect 2 junior high schools.

Fla., Venus.—City will let contract in about 30 days to erect school; 1 story; brick; mission style; 6 classrooms and auditorium; manual-training and domestic-science equipment; cost \$5,000; Wm. L. Redditt, Archt., Petteway Bldg., Tampa, Fla. (Lately noted.)

Ga., Conyers.—City is having plans prepared by Wm. A. Edwards, 633 Candler Bldg., Atlanta, for school; 2 stories and basement; brick; slate roof; mechanical heating equipment; 12 rooms and auditorium; plans ready in about 3 weeks; H. A. Patrick, Chrmn. of Com. (Lately noted.)

Ga., Ellaville.—City voted \$10,000 bonds to erect school. Address The Mayor. (Lately noted.)

Ga., Savannah.—Chatham County Commrs. will erect \$50,000 school in East Side.

Ky., Lexington.—Board of Education, J. O. H. Simral, Clerk, will have plans prepared by Anderson & Frankel, Lexington, for school on Georgetown St.; 6 or 8 rooms; plans not definite.

Ky., Ludlow.—City defeated bonds to erect school. (Lately noted.)

La., Bastrop.—Bastrop School Dist. will issue \$15,000 bonds to erect and equip school; L. H. Stevens, Secy.

Md., Clear Springs.—Washington County School Board, Hagerstown, plans to erect addition to school; 4 rooms; cost \$10,000 to \$12,000.

Md., Upper Marlboro.—School Commrs. of Prince George's County will issue \$7500 to erect school; O. B. Zantinger, Prest., 9th St. and New York Ave., Washington, D. C.; E. S. Burroughs, Secy., Clinton, Md.

Miss., Greenville.—City receives bids until April 1 (extended date) to erect high school; ordinary construction; composition roof; steam heat; electric lights from city plant; manual-training and domestic-science equipment; gymnasium; swimming pool; cost about \$55,000; R. H. Hunt, Archt., James Bldg., Chattanooga, Tenn.; J. E. Leppert, Chrmn. Building Com. (Lately noted.)

Miss., Washington.—Trustees of Jefferson College, Gerard Brandon, Secy., receives bids until April 3 to erect 2-story brick dormitory; plans by R. E. Bost on file at office of Mr. Brandon.

Mo., Warrensburg.—Board of Regents will rebuild Normal School reported damaged by fire at loss of \$300,000.

N. C., Horse Shoe.—Horse Shoe School Dist. No. 5 plans to erect school. Address Board of Education.

N. C., Winston-Salem.—Slater State Normal and Industrial School will soon let con-

tract to erect dormitory; accommodations for 125 students; cost \$15,000.

S. C., Darlington.—City will erect high school; 18 rooms; texture brick; limestone trimmings; hard plaster; metal ceilings; hollow tile partitions; tin roof; central heating plant to supply steam heat to this structure and present grade building; each structure to have direct radiation for temperature, and stack of indirect radiation and blower for ventilation; automatic temperature control; plans ready March 2; contract let about April 7; \$50,000 available; C. B. Edwards, Chrmn. Board of Trustees; Wilson & Sompayrac, Archts., Columbia, S. C. (Lately noted.)

S. C., Greenville.—City contemplates election in April on \$75,000 bonds to erect high and grade schools and other school improvements. Address The Mayor.

S. C., Orangeburg.—Orangeburg county is considering issuing \$30,000 bonds to erect and equip high school. Address School Trustees.

S. C., Spartanburg.—School Trustees are having plans prepared by L. D. Proffitt, Spartanburg, for North Side School; ordinary construction; cost about \$35,000. (Lately noted.)

Tenn., Chattanooga.—School Board will have plans for St. Elmo school addition changed and will call for bids on altered plans; Hannibal Seagle, member of Board. (Lately noted.)

Tenn., Chattanooga.—Hamilton County Board of Education receives bids until March 16 to erect and install plumbing, lighting and heating for 3 brick schools: one at Clifton Hills and 2 at Soddy, Tenn.; plans for former by and on file at office of DeSaba & Adams, Chattanooga; for latter, by C. E. Bearden and W. H. Sears, respectively, both of Chattanooga; W. S. Beck, Chrmn.

Tenn., Knoxville.—Knox County High School Board will petition Legislature for authority to issue \$20,000 to \$25,000 bonds to erect addition to Central High School; 3 wings each, with 12 rooms; accommodations for 40 students.

Tenn., Knoxville.—Knox County Grammar School Board opens bids March 19 to erect school in county; 68x54 ft.; brick veneer; tar and gravel roof; steam heat; electric lights; L. C. Waters, Archt., 613 Market St., Knoxville.

Tenn., Nashville.—Vanderbilt University is reported to let contract April 6 to erect \$250,000 laboratory building; plans by Samuel Hannaford Sons, Cincinnati, O. (Previously noted.)

Tenn., Soddy.—Hamilton County Board of Education, Chattanooga, Tenn., receives bids until March 16 to erect 2 schools. (See Tenn., Chattanooga.)

Tenn., Sweetwater.—Board of Trade will petition Board of Commrs. for election on \$10,000 bonds to liquidate indebtedness and provide additional school buildings, grounds, etc.

Tex., Berclair.—City is reported to erect \$5000 school. Address The Mayor.

Tex., Berclair.—City will erect \$5000 school; 4 rooms, hall and auditorium.

Tex., Big Sandy.—School Board has plans by S. J. Blocher, Longview, Tex., for high school; cost \$35,000 complete.

Tex., Dallas.—Mount Auburn School Dist. votes March 27 on \$18,500 bonds to erect school; James A. Robertson, Chrmn. Board of School Trustees.

Tex., Dallas.—Union Academy Ind. School Dist., Thos. E. Henry, County Supt., will erect school near Dallas; 40x50x24 ft.; ordinary construction; cost \$10,000. Address W. R. Hamilton, R. No. 9, Dallas. (Previously noted.)

Tex., El Paso.—School Board opened bids to erect 6-room addition to Beall School, according to plans by Trost & Trost, El Paso; Elliott Engineering Co., El Paso, is lowest bidder at \$12,277. (Lately noted.)

Tex., Fairfield.—School Board is having plans prepared by C. H. Leinbach, 1105 Southwestern Life Bldg., Dallas, for school; 2 stories; brick; plans ready for bids in about 30 days; cost about \$12,500.

Tex., Gainesville.—State Board of Control, Austin, Tex., will erect State Training School for Girls; cost about \$50,000.

Tex., Jacksonville.—School Board is having plans prepared by S. W. Ray, Jacksonville, for school; 8 rooms; red brick; white-brick trimmings; brick partition walls on first floor; gravel roof; metal ceilings; composition blackboards; jacketed ventilating stoves; contract let in about 60 days; cost \$8500.

Tex., McGregor.—McGregor Independent School Dist. will soon receive bids to erect

high school for which \$25,000 bonds were sold; Walter Ainsler, Secy.

Tex., Sadler.—City sold \$10,000 bonds and will erect 6-room brick school. Address School Trustees.

Tex., Waco.—Baylor University has plans by Geo. Burnett, Waco, for athletic building; white brick, with ornamental entrances; total floor space 37x100 ft.; grandstand to seat 1300; gymnasium 36x100 ft.; storeroom 12x100 ft.; provision for 2000 lockers; cost \$5400.

Va., Lynchburg.—School Board will consider competitive plans March 15 from number of local architects for school to replace burned Court Street School; 8 rooms, 4 administration offices, recreation rooms, etc.

W. Va., Clarksburg.—West Virginia Business College (J. B. Catlett) is receiving bids to erect business college and gymnasium; 5 stories; 88x150 ft.; fireproof; construction begins about May 1.

STORES

Ark., Arkadelphia.—J. H. Bell is reported to erect building; brick; frontage 54 ft.; 2 stories; 28 ft. high; 13-in. walls; recess front of polished plate glass; 12-in. girder; iron columns, with brick built around same; metal ceiling; white enamel brick; hot-water heat. (See Machinery Wanted.)

Ark., Green Forest.—E. J. McGowan, W. A. Butt and J. H. Ramsey will soon let contract to erect 3-story brick business building.

Ark., Pine Bluff.—P. P. Byrd and H. B. Speers will erect buildings to replace burned structures. (Lately reported burned at loss of \$55,000.)

D. C., Washington.—M. Goldenberg, 912 7th St. N. W., will remodel 2-story brick building at 603 7th St. N. W.; cost \$4000.

Fla., Mayo.—Ware Drug Co. will erect building to replace structure lately noted damaged by fire; 25x80 ft.; 2 stories; brick and wood; roofing not decided; lower floor for stores; upper floor for offices; construction by owner.

Fla., Miami.—C. Arthur Peters will erect business block at Avenue C and 6th St.; 2 stories; reinforced concrete; lower floor for 2 stores; upper floor for 4 apartments; completion by May 1.

Ga., Savannah.—J. B. Pound, Chattanooga, Tenn., is reported to erect hotel annex with stores on lower floor. (See Hotels.)

Ga., West Point.—Geo. Winston is reported considering erection of number of brick stores on Fourth Ave.

Ga., West Point.—H. B. Hill is reported to erect 10 store buildings on Fourth Ave.; brick; steel columns; plate-glass fronts.

Mo., Kansas City.—Dr. F. J. Soden, 619 Ridge Bldg., has plans by Harry J. Simons, Shukert Bldg., Kansas City, for store building at 12th and Locust Sts.; fireproof; steel and reinforced concrete; gravel roof; steam heat; electric lights; granite sidewalks; 44x80 ft.; 3 stories, with walls to carry 5 additional stories; cost \$25,000 with mechanical equipment; construction begins about April 10; address Archt. (Lately noted.)

Mo., St. Louis.—Sarama Investment Co. will erect stores and apartments at Easton and Corn Aves.

Mo., St. Louis.—Jos. Farrell will erect store and apartment-house. (See Apartment-houses.)

Mo., St. Louis.—April Investment Co. will erect stores and flats at Kingshighway and Murdock Ave.

N. C., Raleigh.—C. E. Lightner & Bro. will erect 2-story brick building at 122 E. Hargett St.; cost \$6000.

N. C., Southern Pines.—H. A. Lewis, Bethlehem, N. H., and Commissioner Burgess are reported to erect brick 72x63 ft.; contain 3 stores; pressed-brick fronts, 17 ft. high; each store to have 2 plate-glass windows.

Okla., Jennings.—C. N. Haskell, Muskogee, Okla., will erect 2-story brick business building.

Okla., Okeene.—George Dusbabek is reported to erect cement block business building.

Okla., Sapulpa.—Western Oil Station Co. plans to erect business building; building materials include steel, concrete, stucco finish, tile roof; plate-glass front and sides.

Okla., Tulsa.—A. F. Ault is reported to erect business and office building; 2 stories; brick.

Okla., Tulsa.—C. C. Cole is having plans prepared for building at 5th and Boston Sts.; 2 stories; 100x140 ft.

Okla., Woodward.—Jas. T. Hastings is erecting brick business building.

S. C., Anderson.—J. H. Anderson, Prest. of Citizens' National Bank, contemplates erecting store building; 2 stories.

S. C., Greenville.—J. Hudson Williams is reported to erect 3-story brick building at Main and Spring Sts.

S. C., Greenville.—A. L. Mills will erect business building; 2 stories; stone; 25x60 ft.; construction begun.

Tenn., Knoxville.—Morris Bart has plans by A. B. Baumann, 713 Henson Bldg., Knoxville, to remodel business building; 54x96 ft.; 2 stories and basement; ordinary construction; gravel roof; steam heat; electric lights; prism vault lights; contract let about April 1. (Lately noted.)

Tenn., Memphis.—E. J. Pearson will expend \$5000 to repair structure at 2282 Madison Ave.

Tenn., Memphis.—H. J. Rettew will erect 1-story brick building on Union Ave.; cost \$5000.

Tex., Beaumont.—Caswell estate is reported to erect 2-story business building on Pearl street.

Tex., Fort Worth.—North Fort Worth Townsite Co. will erect store on N. Main St.; cost \$4000.

Tex., Houston.—T. E. Byrnes will erect 1-story brick store at 5th and Washington Sts.; cost \$13,500.

Tex., San Antonio.—Estate of H. Jorgenson will erect business building on E. Commerce St.; cost \$7000.

Tex., Wylie.—A. W. Discher is reported to erect brick building for business purposes and lodgerooms; 40x100 ft.

Va., Norfolk.—Real Estate, Trust & Insurance Co. (Agt.) has plans by Wyckham C. Taylor, Norfolk, for store building on Monticello Ave.; 3 stories; 1 story; 42x60 ft.; bids opened March 9.

Va., Richmond.—R. Kastelburgs' Sons will erect 2-story brick store at 1712 E. Main St.; cost \$8000.

W. Va., Huntington.—Miller-Ritter syndicate, composed of Geo. F. Miller estate (H. T. Lovett and G. D. Miller, executors) and C. Lloyd Ritter, is having plans prepared by Verus T. Ritter, Huntington, for addition to building; 30x75 ft.; probably 2 stores on lower floor.

W. Va., Moundsville.—R. H. Conner is reported to erect business buildings.

THEATERS

Fla., Tampa.—Company will be inceptd. with H. C. Dorsey, Prest.; E. C. Miller, Treas., both of Tampa; H. S. Hazlett, Secy., Birmingham; will erect moving-picture theater; seating capacity 1500; cost \$60,000.

Ga., Atlanta.—Alamo Amusement Co. will expend \$3000 for repairs at 36 Peachtree St.; day labor.

Miss., Gulfport.—B. C. Bowen and J. R. Hill are reported to erect opera-house on 14th St.

Okla., Lehigh.—I. O. O. F. will receive bids until March 18 to erect lodge and theater building. (See Assn. and Frat.)

Tenn., Clarksville.—Lillian Theater Co. is having plans prepared by Joseph & Joseph, Louisville, Ky., for proposed theater.

Tex., Ballinger.—L. Cohen will erect theater; contract reported to be let in May.

WAREHOUSES

Ala., Birmingham.—Camp Transfer & Warehouse Co., Edward Arnold, Mgr., will erect warehouses, offices and stable; 4 stories; 150x240 ft.; fireproof; tar and gravel roof; steam heat; electric lights; electric elevator.

Md., Baltimore.—Jno. Kirchner, Frederick Ave. and Bentalou St., will alter and erect addition to warehouse at Orleans and Bradford Sts.; addition 2 stories, 26x75 ft.; 3d story over old and new parts, 60x75 ft.; mill construction; slag roof; steam heat; electric light; cost about \$10,000; bidders include Alex. W. Brown, and Edw. Pliert, both at 15 E. Fayette St.

Mo., St. Louis.—Theo. W. Mertens will erect addition to storage building at 3025 N. 12th St.; cost \$4000.

S. C., Columbia.—Gulf Refining Co. will erect frame building and 3 tanks at Pulaski and Green Sts.; cost \$4500.

Tex., Beaumont.—Tyrrell Milling Co., incorporated by W. C. Tyrrell and others; will acquire Bettis Mfg. Co.'s plant; will convert present structure into rice warehouse, etc. (See Miscellaneous Factories.)

Va., Richmond.—Fleming & Christian will erect brick and concrete warehouse at 15th and Franklin Sts.; cost \$20,000.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

D. C., Washington.—F. G. Carroll has plans by Cloughton West, 210 Corcoran Bldg., Washington, and let contract to J. J. Moebis, 217 Colorado Bldg., Washington, to erect apartment-house at 1318 Q St. N. W.; 3 stories; 15x32 ft.; brick; slag roof; electric light; cost \$6000.

Ga., Augusta.—Mrs. Geo. H. Howard let contract to J. L. Holley, 305 Leonard Bldg., Augusta, to erect apartment-house in 1200 block Broad St.; 75x110 ft.; 3 stories; ordinary construction; metal roof; cost \$25,000 without mechanical equipment; J. B. Story, Archt., Montgomery Bldg., Augusta. (Lately noted.)

Mo., Kansas City.—Frank J. Bruening, 21st and Troost Ave., let contract to W. S. Weeks, Building Exchange (Midland Bldg.), Kansas City, to erect 2 apartment-houses at 33d St. and Euclid Ave.; 45x65 ft.; ordinary construction; tar and gravel roof; steam heat; electric lights; cost \$20,000 each without mechanical equipment; Edgar C. Faris, Archt., Shukert Bldg., Kansas City, Contr., will take subbids. (Lately noted.)

Mo., St. Louis.—F. Horstmeier will erect 2-story tenement-house at 4176 Farlin St.; cost \$4500; A. Deckmeier, contractor.

Mo., St. Louis.—August Mueller let contract to C. Larr, St. Louis, to erect 2-story tenement-house at 3940 Lafayette St.; cost \$4000.

Mo., St. Louis.—Fred Lane let contract to H. A. Huger, St. Louis, to erect 2-story tenement-house at 4748 St. Louis St.; cost \$4300.

N. C., Asheville.—Richard Wingren let contract to Merchant & Boyles, Asheville, to erect apartment-house at Charlotte and Chestnut Sts.; three 6-room suites; double plate-glass windows; brick construction; lower floor for store; Smith & Carrier, Archts., Asheville.

Tenn., Nashville.—Max Bloomstein let contract to erect store and apartment-house. (See Stores.)

Tex., Abilene.—Geo. Finberg has plans by and let contract to R. E. Rigg, Dallas, to erect apartment hotel; 2 stories; fireproof; gravel roof; natural-gas heat; cost \$15,000. Address Mr. Finberg. (Lately noted.)

Va., Norfolk.—A. S. Gorton let contract to John Kelbaugh, Norfolk, to erect 2-story brick apartment-house at Colley Ave. and 28th St.; cost \$7000.

Va., Norfolk.—Royal Realty Corp. let contract to J. J. Johnson, Law Bldg., Norfolk, to erect store and apartment building on Tazwell St.; 3 stories; brick and stone; composition roof; heating and lighting not determined; cost \$20,000 without mechanical equipment; J. W. Lee, Archt., Seaboard Bank Bldg., Norfolk. (Previously noted.)

Va., Norfolk.—H. H. Fisher let contract to C. C. Barclay, Arcade Bldg., Norfolk, to erect 2 apartment-houses in Colonial Ave.; lately noted; 3 stories; brick; about 40x60 ft. and 40x65 ft.; steam heat; cost about \$14,000. (See Machinery Wanted.)

Va., Norfolk.—C. R. Carver let contract to Jesse Johnson, Norfolk, to erect apartment-house at 38th and Granby Sts.; 121x105 ft.; ordinary construction; 5-ply gravel roof; steam-heating plant to cost \$2500; cost \$12,000 without mechanical equipment; H. W. Simpson, Archt., Norfolk. (Previously noted.)

BANK AND OFFICE

Fla., Jasper.—Commercial Bank let contract to F. B. Hewitt, Doshier, Ga., to erect bank building; 22x50 ft.; 2 stories; ordinary brick construction; tin roof; electric lights from city plant; cost \$3000 without mechanical equipment; John T. Smith, Archt. (Lately noted.)

Ga., Doiling.—State Bank inceptd. with Dr. A. H. Weathers, Prest., let contract to Abell Contracting Co., Enigma, Ga., to erect building; brick; 18x30 ft.

Tenn., Knoxville.—J. E. Carty let contract to erect office and store building. (See Stores.)

Tex., Memphis.—Drs. Wilson and Wilson let contract to erect store and office building. (See Stores.)

W. Va., Parkersburg.—Second National Bank let contract to H. H. Vought & Co., 340 Madison Ave., New York, to erect bank building; modified classic style; mahogany trim; marble and granite walls lined with terra-cotta tile; reinforced concrete construction; marble fixtures, etc.; cost about \$50,000; Dennison, Hiron & Derbyshire, Archts., 475 5th Ave., New York; let contract for safe-deposit boxes and vault to

Mosier Safe Co., Hamilton, O. (Previously noted.)

CHURCHES

D. C., Washington.—Church of the Transfiguration let contract to Frank L. Wagner, 1413 H St. N. W., to erect chapel on Gallatin St.; frontage 47 ft.; rubble masonry; cost \$20,000; Arthur M. Burt, Archt., 1500 Emerson St., Washington. (Lately noted.)

Mo., St. Louis.—Murch Bros. Construction Co., St. Louis, general contractor to erect church auditorium for Westminster Presbyterian Church at Union and Delmar Sts., let following subcontracts: Reinforcing steel, Bergendahl-Knight Co.; granitoid, Cement Construction Co.; plastering, H. Niehaus; excavating, John Moloney; painting, J. W. O'Connell Painting Co.; sheet metal, Powers & Boyd Corncie & Roofing Co.; cut stone, Pickel Stone Co.; millwork, Riddle-Rehbein Mfg. Co.; wood stairs, J. W. Reinhardt Stair Co.; lumber, J. Seidel Lumber Co.; iron work, Spuck Iron & Foundry Co.; plumbing and sewerage, J. Sheehan Plumbing Co.; brick work, John Schmolli; all of St. Louis; plans by A. B. Groves, Stock Exchange Bldg., St. Louis, call for structure 60x128 ft.; fireproof and ordinary construction; slate roof; steam heat; cost \$100,000 without mechanical equipment. (Previously noted.)

S. C., Columbia.—B'rith Shalom Congregation let contract to W. H. Sellers to erect building; frame; cost \$3637; B. Berry, Chrmn. Building Com.; Wilson & Sompayrac, Archts., Columbia.

S. C., Charleston.—Baptist State Mission Board let contract to S. E. Hendry, Charleston, to erect church building at King and Frances Sts.; 50x50 ft.; brick veneer; tin galvanized shingle roof; steam heating plant to cost \$685; electric lights; cost \$10,000 without mechanical equipment; also let contract to Carl Knutsson, Charleston, for heating and plumbing. (Lately noted.)

Tex., Wichita Falls.—Church of the Good Shepherd (Episcopal) has plans by Chas. J. Pate, Wichita Falls, and let contract to R. C. Dyer, Stamford, Tex., to erect building; brick; cast cement stone trimmings.

Tex., Wichita Falls.—Catholic Congregation of Sacred Heart, Rev. John J. Campbell, pastor, let contract at \$21,443 to L. R. Wright & Co., Dallas, to erect building; 107x51 ft.; ordinary mill construction; Bangor slate roof; gas heat; electric lights; Sanguinetti & Staats, Archts., Fort Worth. (Previously noted.)

Va., Portsmouth.—F. P. Nash estate (F. H. Miller, Agt.) has plans by and let contract to Nash & Jones, Portsmouth, to erect 3 stores to replace structures lately noted damaged by fire; 2 stories; 75x60 ft.; ordinary construction; Barrett's specification roofing; electric lights; cement sidewalks; pressed brick front; cost \$6000.

CITY AND COUNTY

Fla., St. Augustine.—Jail.—St. John's county let contract at \$4506 to Southern Steel Construction Co., Birmingham, Ala., for 6 steel cells in jail. (Lately noted.)

Tex., Galveston.—City Hall.—City let contract at \$3950 to Warren Co., Houston, for plumbing, and at \$298 to Kinnison Bros., Dallas, for heating plant in city hall; plans by C. D. Hill & Co., Dallas, call for structure 130x275 ft.; 4 stories and basement; total cost \$225,000; Gross Construction Co., general contractor, Waco, Tex.; Max Levy, contractor for wiring, Galveston. (Lately noted.)

Tex., Houston.—Warehouse.—City let contract to Horton & Horton, Houston, to erect previously-noted wharf and warehouse on Buffalo Bayou, and to L. T. Gaylord for dredging; cost \$155,000; Ben Campbell, Mayor. (See Miscellaneous Construction.)

COURTHOUSES

Fla., West Palm Beach.—Dade Lumber Co., West Palm Beach, has contract for cement, brick and lumber to be used in construction of Palm Beach County Courthouse, for which E. P. Maule, West Palm Beach, has general contract at \$122,000; Talley & Summers, Archts., St. James Bldg., Jacksonville, Fla. (Lately noted.)

DWELLINGS

D. C., Washington.—Mrs. Chas. Ray Dean let contract to F. L. Wagner, 1413 H St. N. W., Washington, to erect residence at 23d St. and Tracy Pl.; 42x50 ft.; ordinary construction; tin and slate roof; steam heat; electric lights; cement sidewalks; cost \$17,000 without mechanical equipment; George

Oakley Totten, Archt., 808 17th St. N. W., Washington. (Lately noted.)

D. C., Washington.—Claude E. and Lena R. Graves prepared plans and let contract to erect 2 dwellings at 723-5 Webster St. N. W.; 2 stories; 24.11x33 ft.; brick; tin roof; hot-water heat; electric light; cost \$700; J. W. Powell, Contr., 628 6th St. N. E.

D. C., Washington.—G. Gordon Bailey prepared plans for and let contract to D. D. Thompson & Co., 1335 F St. N. W., Washington, to erect 3 dwellings at 4200-4 8th St. N. W.; 2 stories; 20x34 ft.; brick; tin roof; hot-water heat; electric light; cost \$3500.

D. C., Washington.—Mary L. Jennings has plans by Isalah T. Hatton, 506 5th St. N. W., and let contract to M. A. Miller to erect 2 dwellings at 2127-9 K St. N. W.; 2 stories; 18x48 and 18x45 ft.; brick; slag roof; hot-water heat; cost \$6347.

D. C., Washington.—Fulton R. Gordon let contract to Guy S. Zepp, 734 15th St. N. W., Washington, to erect dwelling at 2358 Champlain Ave.; 2 stories; 20x120 ft.; brick; slag roof; hot-water heat; electric lights; cost \$10,000; F. R. White, Archt., 1012 13th St. N. W., Washington.

D. C., Washington.—Herman Hollerith let contract to Geo. A. Fuller Co., Munsey Bldg., Washington, to erect dwelling at 1617 29th St. N. W.; 4 stories; 48.2x53.4 ft.; brick; slag roof; hot-water heat; electric lights; cost \$24,000; construction begun; Frederick B. Pyle, Archt., 607 Evans Bldg., Washington.

Fla., Arcadia.—Z. N. Parker let contract to Cabow & Parker, Tampa, to erect residence; 1½ stories; frame and stucco; hardwood floors; tiled baths; green Spanish tile roof; sleeping porches; cost \$7500.

Fla., Lake Wales.—B. K. Bullard let contract to Logan & Townsend, Lakeland, to erect residence; 2 stories; brick; tile roof; oak floors; probably gas heat; cost \$12,000. (Lately noted.)

Fla., Bartow.—E. J. LaGore let contract to W. M. West, Bartow, to erect residence at Summerlin and Carpenter Sts.; 9 rooms; mill construction; composition roof; concrete roof to cost \$200; cost \$2500 without mechanical equipment. (Lately noted.)

Ga., Atlanta.—B. M. Grant let contract to Gude & Co., Atlanta, to remodel residence; cost \$5000; Battle & Barili, Archts., Grant Bldg., Atlanta.

Ga., Atlanta.—C. A. Bowen let contract to W. T. Butler & Son, Atlanta, to erect 2 frame dwellings at 218-22 Wellington St.; cost \$5000.

Ga., Augusta.—Mrs. Alice K. Morris has plans by and let contract to Woodward Contracting Co., Augusta, to erect residence on William St., Summerville; 55x42 ft. 6 in.; wood shingle roof; hot-air heating plant to cost \$300; electric lights; cost \$7850 complete. (Lately noted.)

Ga., Augusta.—J. B. Ford let contract to A. J. Little, 542 Ellis St., Augusta, to erect residence at Bon Air Ave. and McDowell St.; 32x50 ft.; ordinary or frame construction; tin roof; electric lights from local plant; cost \$3000; also let contracts to Henry Hutt, Augusta, for plumbing, and B. Mitchell, Augusta, for electric work, at combined cost of \$250; W. F. Gleason, Archt., Crawford Ave., Augusta; all materials purchased.

Ga., Macon.—J. T. Davison let contract to Shaw Bros. Co., Macon, to erect dwelling on Hines Terrace; bungalow type; stucco; 6 rooms; cypress shingle roof; cost \$3500; Paul Wilcox, Archt., Macon.

La., New Orleans.—Mrs. Eugenie Sydnay let contract to Jas. Broyard, New Orleans, to erect residence to cost \$4413.

La., New Orleans.—Union Homestead Assn. let contract to H. Schillinger, Jr., to erect \$3600, and to Hartman & Toups, New Orleans, to erect 2-story residence to cost \$330.

Md., Baltimore.—Mrs. Louise Shields has plans by Walter R. Herschfeld and let contract to Wilhelm L'Allemand, Kathland Ave., near Oakland, to erect dwelling at Elsinor and Mondawmin Aves.; 28x48 ft.; frame; slate roof; steam heat; cost \$5800.

Md., Baltimore.—Mary Fear has plans by Stanislaus Russell, 2900 Clifton Ave., Baltimore, and let contract to H. W. Thomas, 2014 Shingluff Ave., Baltimore, to erect 10 dwellings on Westwood Ave.; 2 stories; 14x50 ft.; slag roof; hot-air heat; cost \$16,000.

Md., Ellicott City.—John D. Creecy is reported to have let contract to John Sheridan, 35 E. North St., Baltimore, for alterations and additions to dwelling; cost about \$5000.

Miss., Gloster.—Mrs. E. W. Hays let contract to Wilson & Co., Baton Rouge, La., to erect residence on Union St.; cost \$10,000.

Mo., Kirkwood.—Geo. F. Tittman let contract to Fred Howell, Kirkwood, to erect residence; English country style; hollow tile and stucco; 3 baths; solarium; 2-story sleeping porch; hot-air heat; interior woodwork of white enamel; cost \$10,000; L. Baylor Pendleton, Archt., St. Louis.

Mo., University, Sta. St. Louis.—Bush-Burns Realty Co., St. Louis, has contract to erect bungalow on Harvard Ave., University City, for client; cost, including site, \$7500.

N. C., Winston-Salem.—Fogle Bros., Winston-Salem, have contract to erect 20 four-room tenement-houses on Washington Heights for Jas. A. Gray, Jr.; ordinary construction; shingle roof; cost about \$9000.

Okl., Atoka.—Dr. J. W. McClendon let contract to A. B. Mays, Atoka, to erect stone residence; cost \$12,000.

Okl., Oklahoma City.—R. H. Bennet let contract to Stewart & Wilderson, Oklahoma City, to erect 2-story residence; 32x36 ft.; furnace heat; cost about \$4000; Maurice Jayne, Archt., American Bank Bldg., Oklahoma City.

Okl., Stillwater.—John Weaver let contract to M. L. Burdett and A. M. Hiet, Stillwater, to erect cement-block residence; 28x48 ft.; electric lights; hot-air heat; owner will purchase materials.

Tenn., Chattanooga.—John Taliaferro let contract to Stewart & Johnson, Fergus Bldg., Chattanooga, to erect 2-story brick and stucco residence at Poplar and 2d Sts.; cost \$5000.

Tenn., Estill Springs.—S. R. Tate let contract to R. E. Chilton, Estill Springs, to erect residence to replace structure lately noted damaged by fire; 40x48 ft.; tin shingle roof. Address owner.

Tenn., Nashville.—Roscoe Nunn let contract to C. H. Davidson, Nashville, to erect residence.

Tenn., Nashville.—Kennedy & Graves, 202 Union St., let contract to J. L. Reed, Nashville, to erect residence; 7 rooms; mat brick; new tile roof; hot-air heat; electric lights; cost \$3000 without mechanical equipment; address owner. (Lately noted.)

Tenn., Nashville.—R. N. Parish will erect residence; following contracts have been let: Foundation and cut stone, Foster-Creighton Co.; carpenter work, W. P. Regen; roofing, tin and galvanized iron, Agerton & Robertson Roofing Co.; plumbing and heating, James M. Gallagher; painting, Frank Pierce; plastering, Cooper & Ferguson Co.; electrical work, Herbrick & Lawrence; concrete, Uncle Hiram Roofing Co.; tile, Anton Singer; hardwood floors, Harvey H. Pride; glazing, Riddle Co.

Tex., Ballinger.—R. W. Bruce let contract to Sam Taylor, Ballinger, to erect residence near Ballinger; cost \$3000.

Tex., Corsicana.—E. B. Harris let contract to erect residence.

Tex., Dallas.—C. M. Cockrell let contract to G. W. Moore Construction Co., Dallas, to erect residence; about 35x60 ft.; ordinary construction; tile roof; hot-water heating plant to cost \$700; electric lights; cost \$11,000 without mechanical equipment; C. W. Bulger & Son, Archts., Dallas. (Previously noted.)

Tex., Galveston.—Leith Lumber Co. will erect 2-story frame rooming-house to cost \$3000; also let contract to John Coruthers, Galveston, to erect 2-story residence; 40x120 ft.; cost about \$4000.

Tex., Dallas.—W. S. Gibson let contract to H. Kramer, Dallas, to erect residence at 2222 Lemmon Ave.; 2 stories; 9 rooms; fireproof; brick; shingle roof; cost \$6000 without mechanical equipment; Wm. E. Bellamy, Archt., Dallas. Address owner. (Lately noted.)

Tex., Fort Worth.—W. S. Wright let contract to Chapman & Harms, Fort Worth, to erect residence; 1 story; six rooms; frame; cost \$3000.

Tex., Houston.—Mrs. Geo. P. Brown let contract (cost plus) to John Morin, 2320 Austin St., Houston, to remodel dwelling; tile roof; hot-air furnace; cost \$11,000; Alfred C. Finn, Archt., Houston.

Tex., Midlothian.—T. M. Dees has plans by and let contract to G. W. McElroy, Midlothian, to erect residence; 42x57 ft.; 2 stories; brick veneer; construction to begin about March 10; lighting system to cost about \$235; cost \$6800 without mechanical equipment. (Lately noted.)

Tex., Texas City.—Charles Cassell let contract to V. H. Lauerman, J. S. Smith and D. F. Merritt, Texas City, to erect residence; 10 rooms.

Va., Norfolk.—Henry Henke, Houston, Tex., let contract to R. R. Richardson & Co.,

Norfolk, to erect residence at Stockley Gardens and Raleigh Ave., Ghent; pressed brick; 14 rooms and 5 baths; reception-room overhung with art-glass dome; cost \$30,000, exclusive of plumbing, heating, light fixtures and interior decorations, which will cost about \$6000 additional; James W. Lee, Archt., Norfolk.

Va., Roanoke.—S. D. Ferguson let contract to M. C. Franklin, Roanoke, to erect residence in Crystal Spring Addition; about 50x100 ft.; brick walls; stucco finish; slate roof; vapor heat; electric lights; cost about \$25,000; construction begins Apr. 1; John Kevan Peebles, Archt., Norfolk. Address owner. (See Machinery Wanted.)

W. Va., Charles Town.—Barthol Watson let contract to Myers Bros., Charles Town, to erect residence; 2 stories; frame; 16x38 ft., with wing 16x18 ft.; front and rear porches.

W. Va., Huntington.—Azel Meadows, trustee, let contract to Ohio Valley Construction Co., Huntington, to erect 4 eight-room residences at 12th Ave. and 7th St.; ordinary construction; slate roof; gas grates; also let contract to John R. Day & Co. for plumbing, and Swann, Johnson, Bright & Co., roofing; cost \$3200 without mechanical equipment; E. O. Young, Archt., Huntington. (Lately noted.)

GOVERNMENT AND STATE

Tex., Amarillo.—Postoffice.—M. Yeager & Son, Danville, Ill., general contractors to erect postoffice, let following subcontracts: Structural steel, Omaha Structural Steel Works, Omaha, Neb.; granite, Stone Mountain Granite Corp., Stone Mountain, Ga.; limestone, South Side Stone Co., Bloomington, Ind.; reinforcing, Trussed Concrete Steel Co., Youngstown, O.; partition tile, Acme Fireproofing & Contracting Co., St. Louis; ornamental cast iron, J. B. Klein Iron & Foundry Co.; mill work, Darling Mill Co., both of Oklahoma City, Okla.; ornamental bronze, John Polachek Bronze & Iron Co., Long Island City, N. Y.; plumbing and heating, J. C. Rhodes Plumbing Co., Danville, Ill.; electrical work, Herman Andrae Electric Co., Milwaukee, Wis.; painting, Grohne Contracting Co., Joliet, Ill.; Tennessee marble, Tennessee Producers' Marble Co., Knoxville, Tenn.; other marble, Geo. B. Sickles Marble Co., Tate, Ga.; plans by Oscar Wenderoth, Supervising Archt., Washington, D. C., call for fireproof structure; 70x110 ft.; tile roof; cement sidewalks; cost \$165,000 without mechanical equipment. (Lately noted.)

HOSPITALS, SANITARIUMS, ETC.

Fla., Clearwater.—West Coast Hospital Assn. let contract to John E. Kennedy & Co., 322 Citizens' Bank Bldg., Tampa, Fla., to erect hospital building; mill construction; Texaco asphalt or Johns-Manville roofing; heating, lighting and sidewalks under separate contracts; cost \$21,000 without mechanical equipment; Sargent Hamilton and Lester Avery, Archts., Clearwater; construction begun. (Lately noted.)

HOTELS

Ga., Savannah.—Wise Granite & Construction Co., Richmond, Va., general contractor to erect Hicks Hotel, let following subcontracts in addition to those lately noted: Gravel, sand and brick, Chapman-Clarke Co.; cement, General Building Supply Co.; plaster, Thos. Forshaw; all of Savannah; reinforcing steel, Trussed Concrete Steel Co., Youngstown, O.; ornamental iron, Richmond (Va.) Structural Steel Co.; ornamental terra-cotta, Federal Terra-Cotta Co., New York; terra-cotta partitions, North Birmingham Fire Brick & Proofing Co., Birmingham, Ala.; exterior marble, Blue Ridge Marble Co., Nelson, Ga.; vault lights, American Bar Lock Co., Baltimore, Md.; plans by H. W. Witcover, Savannah, call for 9-story structure; 60x90 ft.; fireproof; terra-cotta and marble front; steel frame; general contract let at \$105,000.

La., Jennings.—Houssier Latrelle Co. let contract to McHugh & Montagne, Jennings, to remodel building for hotel; 32 rooms; cost \$3500 without mechanical equipment; total cost \$7000; I. C. Carter, Archt., Lake Charles, La. Address contractors. (Lately noted.)

Tex., Abilene.—Geo. Finberg let contract to erect apartment hotel. (See Apartments.)

Tex., Greenville.—W. L. Beckman let contract to J. F. Denning, Mexia, Tex., to erect hotel; 109x158 ft.; ordinary construction; tar and gravel roof; electric lights; probably Otis elevator, alternating current, to cost \$2500; cost \$75,000; H. Bernard Macklin, Archt., Greenville. (Lately noted.)

MISCELLANEOUS

D. C., Washington.—National Capitol Drawing Co. has plans by C. A. Didden, 424 Corcoran Bldg., for and let contract to Thos. C. Henderson, 409 McLachlen Bldg., both of Washington, to remodel building at 238 2d St. N. W. for its occupancy; cost \$3000.

Tenn., Nashville.—Clubhouse.—J. W. Patrick, Nashville, general contractor to erect clubhouse for Nashville Golf and Country Club, let following subcontracts: Foundation and concrete work, Foster-Creighton Co.; heating, Allen Scales Engineering Co.; plumbing, H. B. Jordan; marble and tile, Schueler Bros.; plans by Edward Dougherty, Candler Bldg., Atlanta, call for structure of colonial style; wood construction; stone steps and foundation; Tennessee stone trimmings; cost about \$50,000. (Lately noted.)

RAILWAY STATIONS, SHEDS, ETC.

S. C., Columbia.—Columbia Street Ry., Gas & Electric Co. let contract to Shand Engineering Co. to rebuild car barns previously burned; cost \$15,000. (Previously noted.)

SCHOOLS

Fla., Hiedleburg Heights (not a P. O.).—Board of Public Instruction of Pinellas County, Clearwater, Fla., let contract to Lovett & Taylor to erect school; Dixie M. Hollis, Secy. of Board.

Miss., Waynesboro.—City let contract to I. H. Vick, Waynesboro, to erect school building; 2 stories and basement; 60x80 ft.; brick; slate roof; steam heat; electric lights; cost about \$10,000; J. H. Croft, Archt., Waynesboro. (Lately noted.)

Miss., Wesson.—Trustees of Copiah-Lincoln County Agricultural High School let contract to Thompson & Nelson, Mendville, Miss., to erect school building and dormitory; 2 stories; 40x87 ft.; yellow-pine shingle roof; stoves; Eugene McCormick, Archt., Brookhaven, Miss. Address I. T. Williams, Secy. (Lately noted.)

S. C., Clemson College.—Thos. W. Cothran, Greenwood, S. C., general contractor to erect Y. M. C. A. Bldg. at Clemson College, let contract for stone work to Owen Bros., Greenwood; plans by R. E. Lee, Clemson College, call for structure of ordinary construction; light buff brick; cost about \$75,000. (Other contracts and details lately noted.)

Tenn., Columbia.—Rees & Bradley, Columbia, have contract at about \$300 for plumbing in Central High School, for which W. T. Willerford, Nashville, has general contract at \$58,300; plans by Hart & Gardiner, Nashville, call for structure 191x200 ft.; ordinary construction; composition roof; steam heat. (Previously noted.)

Tex., Cooleage.—School Board, A. W. Jowers, Secy., let contract to W. J. Galley, Mineral Wells, Tex., to erect school building; ordinary brick, tile and mill construction; tar and gravel roof; individual room heaters; wired for lights; cost \$22,000; C. H. Leinbach, Archt., Southwestern Bldg., Dallas. (Lately noted.)

Tex., Edgewood.—School Board let contract to L. M. Miller, McKinney, Tex., to erect brick school to replace burned structure; Glenn Bros., Archts., Wichita Falls, Tex.

Tex., Lockney.—Lockney Independent School Dist. let contract to J. L. Scott, Knox City, Tex., to erect school; 2 stories; brick; 95x80 ft.; tar and gravel roof; contract for heating plant to be let in about 30 days; cost \$14,000 without mechanical equipment; Berry & Kaufman, Archts., Amarillo, Tex. (Lately noted.)

Tex., San Antonio.—School Board, Prudential Bldg., let contract to Moody & Miller, San Antonio, to erect domestic-science and manual-training buildings for Douglass school on Nebraska St.; former 25.2x57.5 ft., to cost \$5248; latter 25.2x40.6 ft., to cost \$3000; both brick veneer; tin roof; steam heat; lighting to cost \$100; Leo M. J. Diemann, Archt., 306 E. Commerce St., San Antonio. (Lately noted.)

W. Va., Williamson.—Acme Construction Co., Williamson, general contractor to erect high school, let contract to International Steel & Iron Co., Evansville, Ind., to furnish structural steel and millwork for same; general contractor to furnish all materials and erect structure with day labor; plans by Verus T. Ritter, Huntington, W. Va., call for reinforced concrete and structural steel building; masonry walls; composition roof; electric wiring; furnace-blast system of heating; cost complete \$30,000. (Lately noted.)

STORES

D. C., Washington.—Toney B. Borzey has plans by Melville D. Hensley, 501 Corcoran Bldg., and let contract to Louis Costaglini, 1418 F St. N. W., both of Washington, to erect 2 stores at 3301-3 Georgia Ave. N. W.; 28x45 ft.; brick; slag roof; electric light; cost \$4350.

Fla., Plant City.—Wells & Sons Co. let contract to R. E. Fletcher, Plant City, to erect building to replace burned structure; 90x78 ft.; mill construction; part fireproof; cement sidewalks; construction to begin Apr. 1; cost \$7000. (Lately noted.)

Fla., Tampa.—S. Pardo let contract to M. F. Lopez, Tampa, to erect building; 2 stories; brick; lower floor for stores; upper floor, apartments; cost \$7000; Fred J. James, Archt., Tampa. (Lately noted.)

Ga., Macon.—C. W. McClure let contract to J. H. B. Wilder, Macon, to remodel building at 3d and Cherry Sts. for McClure Ten-Cent Store; 2 stories and basement; composition roof; steam heat; electric lights; cost \$10,000; A. Ten Eyck Brown, Archt., Atlanta. (Lately noted.)

Ga., Savannah.—George Christopher will erect store building on W. Broad St.; 46x75 ft.; 3 stories; mill construction; enamel brick front; tar and gravel roof; concrete sidewalk and prism lights; passenger elevator; cost \$15,000 without mechanical equipment; subcontracts include wiring, roofing and plumbing; W. A. Chaffee, general contractor and engineer, 317 Henry St. E. (See Machinery Wanted.)

Mo., St. Louis.—March Realty Co. let contract to B. J. Charleyville, St. Louis, to erect 1-story stores at 4200-62-64 Olive St.; cost \$20,000.

Mo., St. Louis.—March Realty Co. let contract to B. J. Charleyville, St. Louis, to erect row of 1-story stores at Olive St. and Boyle Ave.; cost about \$30,000.

N. C., Asheville.—Richard Wingren let contract to erect store and apartment building. (See Apartment-houses.)

Tenn., Knoxville.—J. E. Carty let contract to McMurry & La Rue, Knoxville, to erect store and office building at Central and Vine Aves.; 51x82 ft.; ordinary construction; gravel roof; electric (city) lighting; cement sidewalks; cost \$18,000; steam heat, \$1200; Chas. I. Barber and Ben McMurry, Archts., Knoxville; Weaver & Dunn, Knoxville, brick contractors. (Lately noted.)

Tenn., Memphis.—Carroll-Blake Construction Co., Birmingham, Ala., general contractor to erect building for Shop of Culture, let following subcontracts: Terra-cotta, New York Architectural Co., Long Island City, N. Y.; miscellaneous and structural iron, Chattanooga (Tenn.) Iron Works; reinforcement, Pidgeon-Thomas Iron Co.; glass and glazing, Pittsburgh Plate Glass Co., both of Memphis; plans by G. M. Shaw & Co., Memphis, call for 4-story-and-basement building; reinforced concrete; cost \$60,000. (Previously noted.)

Tenn., Nashville.—Max Bloomstein let contract to Henry S. Hunter & Bros., Nashville, to erect lately-noted store and apartment house at 21st and West End Aves.; mill construction; composition roof; steam or hot-air heat; city lighting; S. M. McMurray, Archt., 50 Arcade Bldg., Nashville. (See Machinery Wanted.)

Tenn., Nashville.—Following contracts have been let in connection with erection of building for Burk & Co.: Masonry, M. A. Lightman & Co.; cut stone, Foster-Creighton Co.; brick work, Fulcher Brick Co.; elevators and dumb waiters, Otis Elevator Co.; plastering, Maddux & Hutchison; sprinkler system, General Fire Extinguisher Co.; vacuum cleaners, plumbing and heating, T. J. Mooney & Co.; cement work, W. M. Leftwich & Co.; electric wiring, Nashville Machine Co.; tile and marble, H. E. Farmer; glazing, Warren Bros. Co.; painting, Chas. A. Howell; carpenter work, J. W. Patrick & Co.; vault doors, Ollie P. Williams, Jr.; steel, wrought and cast iron, Nashville Bridge Co.; copper and galvanized-iron work, Phillips & Butterff Mfg. Co.; plans by Asmus & Norton, Nashville, call for 4-story structure to cost \$100,000. (Lately noted.)

Tex., Dallas.—Hume & Harper let contract to J. R. Sessums, Dallas, to repair and improve building; cost about \$5000; Brickey & Brickey, Archts., Dallas.

Tex., Galveston.—Dr. Hall, Houston, let contract to Gross Construction Co., Waco, Tex., to erect 2-story brick business building; 60x75 ft.; cost \$10,000; C. D. Hill & Co., Archts., Dallas.

Tex., Memphis.—Drs. Wilson and Wilson let contract to erect store and office build-

ing; brick; 100x25 ft.; 2 stories; steam heat; lower floor for stores; upper floor, offices.

Tex., Mexia.—Mrs. M. B. Kemp let contract to C. J. Kaul, Mexia, to erect brick store building.

Tex., Moody.—Charles Howard has plans by and let contract to Arthur Jones, Moody, to erect store building; 80x130 ft.; tin roof; stoves; electric lights; cement sidewalks; cost \$15,000 without mechanical equipment; address owner. (Lately noted.)

Tex., Terrell.—Dr. T. P. Davis let contract to O. D. Abbott, 1002 Frances St., Terrell, to erect building at Moore Ave. and Virginia St.; 25x112 ft.; ordinary construction; tar and gravel roof; cost \$5000; O. F. Walton, Archt., Terrell. (Lately noted.)

Tex., Texas City.—Webb & Johnston have contract to erect business building on 6th St. between 5th and 6th Aves.; 4 storerooms.

Va., Berkeley, Sta. Norfolk.—I. Harry Goodman let contract to Atkinson Building Co., Norfolk, to remodel building at Liberty and Brunswick Sts.

RAILROAD CONSTRUCTION

RAILWAYS

Ark., Snell.—Doniphan Lumber Co., Kensett, Ark., is reported to have begun construction of a railroad from Snell northeast 25 mi. to Batesville, Ark.

Fla., Fellsmere.—Construction of an extension of the Fellsmere R. R. to Broadmoor, 3½ mi., begun. E. H. Every is Mgr.

Fla., Fort Myers.—Fort Myers, Marco Bay & Miami R. R. Co. It is reported, will build a line from Fort Myers south and east to Naples, Marco Bay, Everglade and Miami, about 150 mi. Survey started several months ago to be finished immediately. West Coast Construction & Development Co. to be formed for construction. W. J. Hillands, Ocala, Fla., is trustee, and W. B. Clay, Arcadia, Fla., Ch. Engr.

Fla., St. Augustine.—Jacksonville & St. Augustine Public Service Corporation, which has just been granted extension of time to Feb. 25, 1916, to complete its line in St. Augustine, states that 7½ mi. have been graded out of South Jacksonville and 3½ mi. of track laid from South Jacksonville to Hollywood; also, that the company will soon be in position to begin construction and complete the road. T. R. Osmond of St. Augustine and others are interested.

Fla., West Palm Beach.—Contract has been let, it is reported, by the Palm Beach & Everglades R. R. Co. to the Everglades Construction Co. for building its proposed line of about 75 mi. from West Palm Beach to Lake Okechobee, and around its southern side to Lake Hitchcock. To be completed in a year. Chas. H. Baker of New York is Pres.; James A. Moore of Miami, Fla., V.-P. and Gen. Mgr., and Alton B. Parker of New York general counsel for the railroad. Paul T. Brady of New York and Edward B. Lewis of Chicago are mentioned as among the directors.

Ga., Augusta.—Savannah & Northwestern Ry. Co. has applied for permission to build its line into Augusta from Waynesboro, about 27 mi. J. H. Hunter is Pres. and Richard Morgan Gen. Mgr. at Savannah, Ga.

Ga., Byromville.—Flint River & Navigation Co. will build a railroad from Haskinsville to Albany, Ga., via Unadilla, Byromville and Bakersfield, 80 mi. There will be 1 iron bridge and 2 wooden bridges. All material purchased. Route through level and rolling country. J. M. Sumner is Pres.; E. E. Crooks, V.-P., both of Akron, O.; J. S. Morton, Byromville, is Gen. Mgr., Treas. and Secy.; these, together with Washington Baker of Byromville, constitute the board of directors and ineptors. J. W. Hawkins is Ch. Engr.

Ga., Kingsland.—Atlantic, Waycross & Northern Ry. Co. has applied for amendment to its charter to build an extension from Kingsland to Fort Valley, Ga., 185 mi.; also a branch from a point near the boundary between Camden and Charlton counties to the Florida State boundary, about 40 mi. Capt. L. Johnson, St. Mary's, Ga., is Pres. Wilson, Bennett & Lambdin of Waycross, Ga., are counsel.

Ky., Cressmont.—Turkey Foot Lumber Co. of Cressmont is reported extending its standard-gauge railroad to timber lands in Owsley and Jackson counties.

Ky., Jackson.—Louisville & Nashville R. R., says a report, is surveying for 2 mi. branch from Lohr in Perry county up Buffalo Creek to coal lands. H. C. Williams is Ch. Engr. of Constr. at Louisville, Ky.

THEATERS

Tex., Galveston.—Tom Brick is reported to have let contract to Coyle Bros., Galveston, to improve Rex Theater at cost of \$3500.

WAREHOUSES

Md., Baltimore.—Geo. R. Bullen, 415 N. Howard St., has plans for warehouse at 600 N. Howard St.; 4 stories; 30x98 ft.; brick, concrete and steel; slag roof; steam heat; gas and electric light; electric freight elevator cost \$15,000; Augustus Hughes, Archt., 2104 Mt. Royal Ter.; Patrick Cushon, contractor, 2179 St. Paul St., both of Baltimore. (Lately noted.)

S. C., Gaffney.—R. M. Wilkins let contract to V. I. Spurgeon, Gaffney, to erect warehouse on Frederick St.; Carey roofing; cost about \$3000 without mechanical equipment; address owner. (Lately noted.)

Tex., El Paso.—Gustave Momson has plans by E. Krause, El Paso, for fireproof warehouse; cost about \$4000; contract let.

Tex., Houston.—City let contract to erect wharf and warehouse. (See City and County.)

La., Mandeville.—St. Tammany & New Orleans Railway & Ferry Co. will, it is announced, convert its motor line between Mandeville, Abita Springs and Covington to electric operation. Track reconstruction begun. Joseph Birg and others at Mandeville interested.

La., New Orleans.—Public Belt R. R. will build about 15 mi. of tracks in connection with the new cotton warehouse of the Dock Board. W. J. Hardee, City Hall, New Orleans, is Ch. Engr.

Mo., Kansas City.—Kansas City Terminal Ry. Co. has not reached a decision concern-

ing the construction of a connection to the Kansas City Stockyards. J. V. Hanna is Ch. Engr.

Tex., San Antonio.—Missouri, Kansas & Texas Ry., represented by the San Antonio Belt & Terminal Co., has filed deeds for about \$500,000 of real estate, representing site proposed for new terminal. Frank C. Davis, San Antonio, is Atty. L. F. Lonnblad, Dallas, Tex., is Engr. Maint. of Way.

Tex., Wichita Falls.—Plans are in progress to build a railroad from the Fort Worth & Denver City Ry. and the Missouri, Kansas & Texas Ry. in Wichita or Clay county into Oklahoma to connect with the proposed Euclid, Anadarko & Waurika R. R. Chamber of Commerce at Wichita Falls may be able to give information.

Va., Petersburg.—Petersburg & Appomattox Ry. Co. has been chartered with capital stock from \$1000 to \$100,000 to build a railway 10 to 15 mi. long between Petersburg and City Point, Va. Any motive power may be used. Headquarters at Richmond, Va. Directors: T. M. Wortham, Pres.; B. W. LaPrade, V.-P.; W. W. LaPrade, Secy.; Edwin Wortham, Jr., A. R. Holliday, Alexander Cameron, Jr., and Raymond E. Dudley of Richmond.

STREET RAILWAYS

D. C., Washington.—Capital Traction Co. proposes to build a line on 17th St. N. W. D. S. Carll is 2d V.-P. and Gen. Mgr.

Ky., Louisville.—Louisville Traction Co. may build a line on Madison St. under franchise to be sold by the city on March 16. T. J. Minary is Pres. and Gen. Mgr.

N. C., Asheville.—Asheville Power & Light Co. denies recent press report that it was planning construction of a railway extension to Kenilworth Park. H. W. Plummer is V.-P. and Gen. Mgr.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

"WANTS"

Air Compressors.—Office Lighthouse Inspector, Baltimore, Md.—Bids until Mch. 15 to furnish 2 direct-connected or geared oil engine driven air compressors and accessories; blank proposals and particulars may be obtained from above office.

Air Compressor.—Dallas County Commissioners' Court, C. E. Gross, County Auditor, Dallas, Tex.—Bids until Mch. 15 to furnish and install air compressor with motor and receiver tank; all to be erected complete on foundations in boiler-room of Dallas County Criminal Courts and Jail Bldg.; bids to include piping for air and water to pump water from deep well on present courthouse lot; specifications obtainable from H. A. Overbeck, Archt., 502-506 Juanita Bldg., Dallas.

Alfalfa Machinery.—Frank T. Wilson, Box 346, Tallahassee, Fla.—Addresses of manufacturers of machinery for grinding alfalfa meal for stock feeds; also for mixing the meal with molasses.

Bank Furnishings.—Thos. J. Nelson, Roanoke, Va.—Bids on following for new bank: Fire and burglar-proof safe, mahogany-finish furniture and fixtures; also stationary.

Belting.—Walker Foundry, Belleville, Ont., Canada.—Belting. (See Edger (Lumber), etc.)

Blowers.—Navy Dept., Bureau Supplies and Accounts, Saml. McGowan, Pay-Gen., Washington, D. C.—Bids opened Mch. 23 on 8 pressure blowers, schedule 7392, delivery navy-yard, Washington.

Blocks (Steel Pulley).—W. S. Dickens, Worthington, Fla.—Addresses of manufacturers of steel pulley blocks for wire rope, view to placing order for making specially designed block for power stump puller; blocks to have capacity of at least 60-ton strain.

Boiler.—See Laundry Equipment.—White Star Steam Laundry Co.

Boilers.—Bergman Shoe Co., H. W. Bergman, Pres., Columbia, Mo.—Boilers. (See Shoe Machinery.)

Boiler and Engine.—Geo. Lewis, R. 2, Box 31, Homer, La.—Boiler and engine; could use second-hand, good order.

Box Shooks.—"Tey-Hot" Bottle Co., 122 W. 2d St., Cincinnati, O.—Addresses of manufacturers of shooks for 3-ply veneer packing cases.

Brick (Pressed) Machinery.—See Briquetting Machinery.

Bridge.—Office State Highway Com., G. P. Coleman, Commr., Richmond, Va.—Bids at Caroline County Clerk's Office, Bowling Green, Va., Mch. 18 to erect bridge across North Anna River between Hanover and Caroline counties; structure 282 ft. 3 in. long, 12-ft. roadway; steel superstructure; one 70-ft. span and approaches of beam spans; concrete substructure to include tearing down old bridge and piling same above high water; plans, etc., at Richmond office and offices of County Clerks, Hanover Courthouse, Hanover county, and Bowling Green, Caroline county; blueprints obtainable from Childrey Co., Richmond, for 44 cents and postage per set.

Bridge Construction.—Police Jury, E. C. House, Clerk, Calcasieu Parish, Lake Charles, La.—Bids at office Highway Dept. until April 6 to construct steel highway swing bridge across Black bayou on highway No. 4; bids on following alternatives: (1) Fabrication and delivery, f. o. b. Lake Charles, of steel work and turning machinery; (2) erection of steel work and machinery and construction of substructure; (3) supply and erection of both superstructure and substructure complete; plans and specifications on file office Highway Dept. and obtainable on payment \$5.

Bridges.—Anderson County Bridge Com., C. J. Sawyer, Chrmn., Clinton, Tenn.—Bids until Mch. 25 on 3 bridges across Clinch River, either reinforced concrete or steel on concrete piers and abutments; (1) At Moores Ferry—6 spans if steel, 8 spans if concrete, total length between abutments 675 ft., average height roadbed to solid rock in river 47 ft., approaches, average height roadbed to gravel, 27 ft.; (2) Clinton—5 spans if steel,

6 if concrete, length 535 ft., average height 55 ft., approaches 33 ft.; (3) Edgemoor—4 spans if steel, 6 if concrete, length 600 ft., average height 42 ft., approaches 24 ft.; bidders to submit complete detail plans and specifications with bids; general specifications obtainable office of Bridge Com. Engr., Clinton, for \$1.

Briquetting Machinery.—I. C. Shore & Co., Box 303, Petersburg, Va.—Data and prices on machinery to manufacture pressed bricks of sawdust, or wood fiber and asphalt.

Briquetting (Fuel, Garbage) Machinery.—G. E. Richmond, 1407 Congress Ave., Austin, Tex.—Prices on roller for cans, etc.; shear (Doty or equal make); baling press for cut iron and tin; washing machine for rags; retort for disposing of dead animals.

Bucket (Drag Line).—Irwin F. Smith, Houka, Miss., Route 1.—Drag-line bucket; 1 to 1½ yd.; Iverson or Paige preferred. State how long used and price.

Building Materials.—W. A. Chaffee, 337 Henry St. E., Savannah, Ga.—Catalogues and prices on building materials for \$15,000 store building.

Building Materials.—J. H. Bell, Arkadelphia, Ark.—Prices on building materials.

Building Materials.—Bergman Shoe Co., H. W. Bergman, Pres., care Hamilton Brown Shoe Co., Columbia, Mo.—Prices on all kinds for building materials for 3-story, 50x200-ft., fireproof, reinforced concrete building.

Bung Machinery.—Dixie Lumber Co., Clifton Forge, Va.—Addresses of manufacturers of bung machinery.

Canal Excavation, etc.—Dept. of Interior, U. S. Reclamation Service, Washington, D. C.—Bids at office United States Reclamation Service, Provo, Utah, until April 8 for 8000 yds. canal excavation and 1350 yds. reinforced concrete; work located near Payson City, Utah, on San Pedro, Los Angeles & Salt Lake R. R. and Tintic Branch of Denver & Rio Grande R. R.

Canning Machinery.—See Syrup (Cane) Mill.—Gilbert Industrial College.

Canning Machinery.—Fairley Bros., Orangeburg, S. C.—Prices on canning machinery, cans, etc., for plant to can product of 25 to 30 acres truck.

Cars.—Pennsylvania Equipment Co., Philadelphia, Pa.—Standard gauge flat and box cars.

Castings (Brass).—Morris Wertheimer Valve Co., J. H. Morris, Pres., Birmingham, Ala.—Prices on brass castings.

Cement.—City Engr., Chas. E. Bolling, Richmond, Va.—Bids until Mch. 16 for 20,000 bbls. cement; proposal forms, etc., from Engr.

Coal.—City of Danville, Va., Frank Talbott, purchasing agent.—Bids until Mch. 8 to furnish 500 tons steam coal, 5000 tons steel coal and 9000 tons of gas coal; for details as to delivery, etc., address Mr. Talbott.

Cold-storage Plant.—S. D. Ferguson, Roanoke, Va.—Data and prices on cold-storage plant for \$25,000 residence.

Columns (Wood).—Travers Wood Co., American National Bank Bldg., Richmond, Va.—Addresses of lumber manufacturers producing round columns for cotton mill work.

Concrete Machinery.—H. A. McQuay, Box 201, Wadesboro, N. C.—Mixers, conveying machinery, etc., for manufacturing concrete blocks, etc.

Concrete (Reinforced) Construction.—See Canal Excavation, etc.—Department of Interior.

Cotton Mill Supplies.—A. B. Cole, Rockingham, N. C.—Correspondence with manufacturers of and dealers in cotton mill supplies; view to agencies.

Cotton (Jersey) Cloth.—Virginia Glove Co., Wytheville, Va.—Correspondence with manufacturers of brown jersey cloth for glove making. (See Glove Machinery.)

Crane.—Navy Dept., Bureau Yards and Docks, H. R. Stanford, Chief, Washington, D. C.—Bids until Mch. 27 for 15-ton 4-motor electric traveling crane, delivered and erected at navy-yard, Washington; specification No. 2139.

Culvert Machinery.—Culvert, care Manufacturers Record, Baltimore, Md.—Culvert machinery for small plant; first-class condition.

Drainage System.—Comms. Grassy Lake and Tyrone Drainage Dist. No. 9, E. Simonson, Chrmn., Osceola, Ark.—Bids until Mch. 24 to construct 21,000 cu. yds. levee embankment near Marked Tree, Ark.; 6700 cu. yds. levee embankment and 9000 cu.

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length 600 ft.
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west of Blytheville, Ark.; 7300 cu. yds. ditch
excavation and installation of 62 ft. 12-in.
sewer pipe, 50 ft. 18-in. sewer pipe and 198
ft. of 24-in. sewer pipe, with concrete bulk-
heads, amounting to 29 cu. yds. at Osceola,
Ark.; furnishing steel for or erecting com-
plete on concrete abutments five steel
bridges; information and plans furnished
by Morgan Engineering Co., Memphis,
Tenn.; all earthwork suitable for teams.
Drainage System.—Weakley County
Middle Fork and Spring Creek Drainage
Dist. No. 1, G. T. Mayo, Chrmn., Dresden,
Tenn.—Bids until April 8 to construct drain-
age system; contract No. 1, about 364,700 cu.
yds. embankment in north levee, with float-
ing dredge; contract No. 2, about 543,550 cu.
yds. excavation in Spring Creek ditch, 270,615
cu. yds. embankment in south levee and
4,300 cu. yds. embankment in back water
levee No. 2, all with floating dredge; con-
tract No. 3, clearing about 500 acres flood-
way between levees; for information address
G. T. Mayo, Chrmn., Dresden, Tenn.; W. E.
Tansil, Secy., Sharon, Tenn.; R. T. Lewis,
Atty., Dresden, Tenn., or Morgan Engineer-
ing Co., Memphis, Tenn.
Dry-storage Machine.—C. H. Kennerly,
Palatka, Fla.—To correspond with manu-
facturer of machine for dry-storage purposes.
Edger (Lumber), etc.—Walker Foundry,
Belleville, Ont., Canada.—Second-hand
double lumber edger; also belting; describe.
Electric-light Plant.—City of Cameron,
Mo.—Bids by Clarence Staples, City Clerk,
until Mch. 16 to furnish and install in plant
the following: 300 H. P. slow-speed, simple
Corliss engine, non-condensing, or 300 H. P.
slow-speed, simple Corliss engine, non-con-
densing, for direct-connected unit; 250 K. V.
A., 3-phase, 60-cycle, 2300-volt, belt-driven
generator, 600 R. P. M., with belted exciter,
or 250 K. V. A., 3-phase, 60-cycle, 2300-volt,
direct-connected generator, 120 R. P. M.,
with belted exciter; switchboard panel and
instruments for generator and exciter; also
additional switchboard instruments; fur-
nishing and installing steam piping, moving
and resetting heater, etc.; furnishing and
erecting new steel stack; furnishing mis-
cellaneous items; plans and specifications
on file with City Clerk, or may be seen at
office of Consult. Engrs., Harper & Stiles,
311 Grand Ave. Temple, Kansas City, Mo.
Electric-light Plant Materials.—
Grundy Light & Power Co., H. M. Johnson,
Mgr., Grundy, Va.—Prices on material for
interior wiring; fixtures; line material.
Electric Batteries, etc.—C. Hubert
Fils, 133 on 33 Rue Vauban, Cherbourg,
Manche, France.—Interested, view to repre-
sentation, in electric batteries and flash-
lights.
**Electric-light and Sewerage Sys-
tem.**—Board Bond Trustees, Chas. H.
Mann, Chrmn., Pablo Beach, Fla.—Bids un-
til Mch. 20 at Citizens' Bank, Jacksonville,
Fla., to construct electric-light and sewer-
age systems; electric system to include 172
poles, 5127 lbs. wire, two 50 H. P. oil en-
gines, two 37½ K. V. A. generators, 10,000-
gal. steel fuel oil tank, galvanized iron build-
ing, 11 transformers, 48 street lights; sewer-
age system includes 8265 ft. 8-in. and 5815 ft.
10-in. pipe, manholes, flush tanks, lamp-
holes, air compressor, oil engine, air re-
ceiver, pneumatic ejectors and ejector pit,
and 8630 ft. 8-in. soil pipe force main; con-
tract to be let whole or in sections; plans
and specifications office of City Clerk, with
Chrmn. Board Bond Trustees and Jackson-
ville office of Engr. (J. B. McCrary Co.),
307 Atlantic National Bank Bldg.
Electrical Machinery.—Williamson
Light & Ice Co., Williamson, W. Va.—Gen-
erator; 200 and 400 K. W., 2200 volts; also
other equipment.
Electrical Fixtures.—Geo. Feltham, St.
Petersburg, Fla.—Prices and data on elec-
trical fixtures for \$20,000 hotel addition.
Electrical Machinery.—L. L. Hutchin-
son, Oklahoma Spring Water & Power Co.,
Box 723, Tulsa, Okla.—Interested in cata-
logue, etc. (not yet ready for prices), on
turbines, dynamos, water pumps and 60 mi.
cypress water mains.
Elevators.—Geo. Feltham, St. Peters-
burg, Fla.—Prices and data on elevators.
Embankment (Railroad).—Port Com-
missioners, F. W. Bruce, Ch. Engr., Jackson-
ville, Fla.—Bids until Mch. 20 to construct
Engine.—See Boiler and Engine.—George
Lewis.
railroad embankment. (See Wharf Construc-
tion, etc.)
Engines.—Bergman Shoe Co., H. W.
Bergman, Prest., Columbia, Mo.—Engines.
(See Shoe Machinery.)
Extractors (Citrus Fruits), etc.—
Harold L. Peters, care L. B. Skinner Mfg.

Co., Dunedin, Fla.—Addresses of manu-
facturers of machines for peeling oranges and
grapefruit, and for extracting oil from citrus
fruits; also wants formula for preserving
orange juice.—See Preserving (Orange
Juice.)
Forms (Concrete Vases, etc.).—C. W.
Blue, 112 S. Buford St., Montgomery, Ala.—
Molds or forms for making ornamental con-
crete vases, lawn settees and other concrete
work; wants illustrated catalogues and net
prices from manufacturers.
Feed Mill Machinery.—See Alfalfa
Machinery.—Frank T. Wilson.
Freezing Machinery.—Fred W. Doss,
Mockba, Moscow, Russia.—Addresses of ma-
nufacturers of "Freezing (freezing) machin-
ery;" view to representation.
Furnaces (Smelting).—Ivan A. Bay-
ley, Box 481, North Sydney, Nova Scotia,
Canada.—Addresses of manufacturers of
small smelting furnace with capacity of
treating 1 to 10 tons lead silver ore on
prospect.
Glove (Canvas) Machinery.—Virginia
Glove Co., Wytheville, Va.—Addresses of
manufacturers of or dealers in machinery
to make canvas gloves.
Governor (Steam Engine).—George
Lewis, R. 2, Box 31, Homer, La.—Throttling
governor for steam engine.
Grading.—Comms. District of Columbia,
Washington, D. C.—Bids until Mch. 15 for
about 30,000 sq. yds. street grading; in-
formation, blank proposal forms and specifi-
cations obtainable from Chief Clerk, Engr.
Dept., Room 427, District Bldg.
Heating.—A. B. Hall, Pulaski, Va.—
Prices on heating equipment for dwelling.
Heating Plant.—C. C. Barclay, Arcade
Bldg., Norfolk, Va.—Prices on steam-heating
plant for 2 apartment-houses.
Hoist.—W. A. Chaffee, 317 Henry St. E.,
Savannah, Ga.—Prices on hoist for elevator
for \$15,000 store building.
Ice Cream or Ice Machinery.—See
Freezing Machinery.
Ice-cream Machinery.—R. B. Hocken-
bull, 2100 W. 6th Ave., Pine Bluff, Ark.—
Machinery for ice-cream plant.
Ice Plant.—Thos. J. Powell, Phoebus,
Va.—Small ice plant.
Incinerator.—S. D. Ferguson, Roanoke,
Va.—Prices and data on incinerator plant
for \$25,000 residence.
Jars, etc.—Eagle Novelty Co., Box 671,
Wilmington, N. C.—Addresses of manu-
facturers of pomade jars; also ¾ or 3-16-in.
tin tubing.
Kettles.—See Syrup (Cane) Mill.—Gil-
bert Industrial College.
Kitchen Utensils.—C. Hubert Fils, 133
on 33 Rue Vauban, Cherbourg, Manche,
France.—Interested, view to representation,
in kitchen utensils.
Lathes (Bench).—Navy Dept., Bureau
Supplies and Accounts, Saml. McGowan,
Pay-Gen., Washington, D. C.—Bids opened
Mch. 23 on miscellaneous bench lathes,
schedule 7993, delivery navy-yard, Washing-
ton.
Laundry.—S. D. Ferguson, Roanoke, Va.
Prices and data on laundry for \$25,000 resi-
dence.
Laundry Equipment.—White Star
Steam Laundry Co., 306 12th St., Lynchburg,
Va.—Will install new boiler and pump, hot-
water system, and probably a few laundry
machines of different kinds.
Leather.—C. Hubert Fils, 133 on 33 Rue
Vauban, Cherbourg, Manche, France.—Inter-
ested, view to representation, in morocco
leather.
Locomotive (Gasoline), etc.—Penn-
sylvania Equipment Co., Philadelphia, Pa.—
Gasoline locomotive, about 10 tons, 36-in.
gauge; also pair drive wheels with steel
tires, about 26-in. diam., for 26-in. gauge
locomotive.
Lumber.—Axel Wedberg, 1006 Horatio St.,
Tampa, Fla.—Prices on walnut, mahogany
and Cuban cedar veneer and lumber; also
birch.
Lumber.—Travers Wood Co., American
National Bank Bldg., Richmond, Va.—Ad-
dresses of lumber dealers in vicinity of At-
lanta, Ga., and surrounding States.
Lumber.—Navy Dept., Bureau Supplies
and Accounts, Saml. McGowan, Pay-Gen.,
Washington, D. C.—Bids opened Mch. 23 to
furnish white ash, delivery navy-yards, Bos-
ton, Brooklyn, Washington; 40,000 ft. bass-
wood, delivery Boston; 2000 ft. butternut,
delivery Norfolk; 10,000 ft. white cedar, de-
livery Boston; 48,000 ft. cypress, delivery
Brooklyn; 24,000 ft. cypress for boat build-
ing, delivery Boston; 6500 ft. Louisiana
cypress, delivery Washington; white oak,

delivery Brooklyn, Norfolk, Boston; domes-
tic white oak, delivery Philadelphia, Wash-
ington, Norfolk, Charleston; North Carolina
pine, delivery Brooklyn, Norfolk; white pine,
delivery Boston, Brooklyn, Washington;
yellow pine, delivery Brooklyn, Philadelphia,
Washington, Charleston, Norfolk, Boston;
New England spruce and 150 spruce poles
for spars and shores, delivery Boston;
Southern spruce, delivery Washington; all
schedule 8015; also North Carolina or Vir-
ginia creosoted pine piles and flooring yel-
low pine, schedule 8014, delivery Norfolk.
Machine Tools.—Wilmington Iron
Works, Wilmington, N. C.—Machinery for
manufacturing machine bolts, set screws, cap
screws, wood screws and other machine
screw products.
Machinery, etc.—American Supply Co.,
Panama, R. P.—Correspondence, view to
agencies, commission basis, with manufac-
turers of following: Asbestos and steam
packing, light hardware specialties, small
electric-light generators, electric-light fix-
tures, water turbines, kerosene engines,
farming implements, including plows, culti-
vators, mowing machines, hay rakes, wheat
drills, reapers, threshing machines, cane
mills, small sugar mill machinery; shoes,
hats, gentlemen's clothing, woolen blankets,
cotton cloth; household furniture, including
iron beds, brass beds, springs and mat-
tresses, wicker furniture, mirrors, kerosene
lamps and chandeliers.
Manufactured Products.—Edgar
Franklin & Co., 62-63 Basinghall St., London,
E. C., Eng.—Interested in manufactures.
Forward samples with free delivered prices
and terms, commission basis.
Milling (Zinc) Machinery.—See Min-
ing Machinery, etc.—Fuller-Shepherd Mining
Co.
Mining Machinery, etc.—Fuller-Shep-
herd Mining Co., John T. Fuller, Prest.,
Rush, Ark.—Prices on mine equipment and
zinc mill machinery.
Mixers.—See Concrete Machinery.—H. A.
McQuary.
Paving.—Town Commrs., A. H. Supplee,
Secy., Betterton, Md.—Correspondence with
contractors, view to letting contract, to con-
struct 30,000 or 40,000 sq. ft. cement and
concrete road and sidewalk.
Paving, etc.—City of Clearwater, Fla.—
Bids until Mch. 19 for brick or asphaltic
concrete street paving, street drains and
basins and concrete combined curb and gut-
ter; \$45,500 available; specifications, plans,
etc., at office of J. N. Drew, City Engr., City
Hall, and obtainable from him for \$5; R. T.
Daniel, City Clerk.
Paving.—Town Council, Pulaski, Va.—
Bids until Mch. 20 to construct about 7 mi.
macadam and concrete streets; plans and
specifications on file office of M. S. Hudgins,
City Engr., and obtainable on deposit \$10.
Paving.—Board of Affairs, O. A. Petty,
Prest., Charleston, W. Va.—Bids until Mch.
21 to curb and pave 15 streets, containing
about 40,700 ft. curbing and 71,640 sq. yds.
paving; consider all well-known classes of
paving material; for plans and specifications
or further information address G. S. Brown,
City Engr., Loewenstein Bldg.
Paving, etc.—City Commrs., Huntington,
W. Va.—Bids until Mch. 22 to grade, curb
and pave with No. 1 vitrified brick 5th St.,
West from 7th to 9th Aves., 10th Ave. from
9th to 10th Sts. and alley between 9th and
10th Aves. from 9th to 10th Sts.; also sewers
in 17th St., 22d St. and various alleys; 10
and 12-in. vitrified sewer tile; plans, profiles,
drawings, etc., on file with A. B. Maupin,
City Engr.; L. A. Pollock, Commr. of
Streets, Sewers, etc.
Paving.—Baltimore (Md.) Board of
Awards.—Bids until Mch. 17 to construct
cement footways around city buildings;
Group No. 1, 15,000 sq. ft.; Group No. 2,
12,000 sq. ft.; Group No. 3, 20,000 sq. ft.;
Group No. 4, 17,000 sq. ft.; specifications
and proposal sheets furnished on applica-
tion to H. K. McKay, City Engr.
Paving.—City of Houston, Tex.—Bids at
office City Secy. until Mch. 12 to grade and
pave German and Maple Sts. from Hamilton
St. to intersection with International &
Great Northern R. R. right of way with
standard brick, vertical fiber brick (asphalt
filler) or vertical fiber brick (cement
filler); specifications and information ob-
tainable from E. E. Sands, City Engr.; Ben
Campbell, Mayor.
Paving.—Sidewalk Committee, Madison-
ville, Tenn.—Bids until Mch. 20 to grade and
construct concrete sidewalks; to include
both sides of College St. for about 4000 lin.
ft.; specifications on file with W. R. Sloan,
Recorder.
Paving.—City of Terrell, Tex.—Bids at
office Jule Trueheart, City Secy., until Mch.

23 to improve North Rockwall Ave. from
Moore Ave. to Howard St.; creosote wooden
blocks with concrete foundation; brick on
concrete foundation; rock asphalt on con-
crete foundation; gravel with concrete base;
gravel with crushed rock base; bitulithic
with concrete base; entirely graveled road-
way; curb and gutter; plans and specifi-
cations on file with City Secy.
Paving.—City of Waycross, Ga.—Bids re-
ceived by Mayor and Aldermen until Mch. 16
for 11,000 sq. yds. brick paving on Carswell
Ave. on sand foundation (curbing laid);
plans and specifications with City Clerk,
A. C. Lowther.
Pipe, Tubing, etc.—Navy Dept., Bureau
Supplies and Accounts, Saml. McGowan,
Pay-Gen., Washington, D. C.—Bids opened
Mch. 23 to furnish 700 ft. ½-in. brass con-
duit, schedule 8005, delivery Brooklyn; mal-
leable iron pipe fittings, terra-cotta pipe and
fittings, and extra heavy wrought-iron pipe,
schedule 7990, delivery Washington; seam-
less brass pipe, schedule 8007, delivery
Portsmouth, N. H.; lead pipe, schedule 8002,
delivery Brooklyn; wrought pipe, schedule
8002, delivery Charleston, S. C.; 1000 lbs.
seamless brass tubing, schedule 8007, delivery
Brooklyn; seamless copper tubing, schedule
8007, delivery Charleston.
Piping (Wood).—Oklahoma Spring
Water & Power Co., Box 723, Tulsa, Okla.—
Data and prices on 60 mi. cypress water
mains. (See Electrical Machinery.)
Piping.—American Metallic Packing Co.,
Lexington, Ky.—1200 ft. 2½ or 3-in. black
iron first-class used steam and water pipe
with couplings.
Plumbing.—A. B. Hall, Pulaski, Va.—
Prices on plumbing equipment for residence.
Plumbing.—Geo. Feltham, St. Peters-
burg, Fla.—Prices and data on plumbing
supplies, etc., for \$20,000 hotel addition.
Plumbing.—C. C. Barclay, Arcade Bldg.,
Norfolk, Va.—Prices on plumbing equipment
for 2 apartment-houses.
Preserving (Orange Juice).—Harold
L. Peters, care L. B. Skinner Mfg. Co.,
Dunedin, Fla.—Formula for preserving
orange juice; also data on peeling and ex-
tracting machinery.—See Extractors (Citrus
Fruits), etc.
Pump.—See Laundry Equipment.—White
Star Steam Laundry Co.
Pumps.—See Electrical Machinery.—Okla-
homa Spring Water & Power Co.
Pump.—American Metallic Packing Co.,
Lexington, Ky.—6x12½ duplex steam pump.
Pumping (Gravel) Contract.—Ra-
pides Gravel Co., Box 57, Alexandria, La.—
Bids on "Pumping with 6 or 8-in. centrifugal
pump on minimum of 150,000 cu. yds.; gravel
to be pumped not exceed total height of 35
ft. above pump center, and not exceed 100
ft. distant;" location near Woodworth, La.
Rails, etc.—Port Commrs., F. W. Bruce,
Chief Engr., Jacksonville, Fla.—Bids until
Mch. 17 to furnish about 1300 ft. second-
hand 70-lb. railroad track, including rail,
splice bars, bolts and spikes.
Retorts.—See Turpentine Machinery, etc.
Lloyd H. Grandy, care B. E. Grandy & Sons,
Alvin, S. C.
Retorts.—See Briquetting (Fuel, Gar-
bage) Machinery.—G. E. Richmond.
Road Roller.—E. W. Gillespie, 606 Asy-
lum St., near L. & N. Depot, Knoxville,
Tenn.—Second-hand 10-ton road roller; Kel-
ley preferred.
Road Construction.—Chambers County
Commrs., Lafayette, Ala.—Bids until Mch.
25 to grade and drain about 5 mi. Welch and
State Line Rd.; expend \$4616.26; profile and
specifications on file at Probate Office; W. S.
Keller, State Highway Engr., Montgomery.
Road Construction.—DeKalb County
Commrs., Fort Payne, Ala.—Bids until April
9 to grade, drain and surface with chert
part of Collinsville and Dawson Gap Rd.;
expend \$7116.26; W. S. Keller, State High-
way Engr., Montgomery.
Road Construction.—Calhoun County
Commrs., Anniston, Ala.—Bids until April 7
to grade, drain and surface with macadam
or chert part of Piedmont and Jacksonville
Rd.; expend \$4616.26; W. S. Keller, State
Highway Engr., Montgomery.
Road Construction.—Montgomery Coun-
ty Commrs., Richard T. White, Jr., Prest.,
Rockville, Md.—Bids until Mch. 23 to con-
struct 3.52 mi. State-aid highway upon or
along county road between Buck Lodge and
State road at Lee's Corner; bids to be made
on blank forms obtained of State Roads
Com., 601 Garrett Bldg.; plans can be seen
and forms of specifications and contract ob-
tained for \$1.
Road Construction.—Calcauden Parish
Police Jury, E. C. House, Clerk, Lake

Charles, La.—Bids until Apr. 6 to construct Highways Nos. 5 and 7; former requires clearing 80 acres, grubbing 600 stations, excavating 90,000 cu. yds. and 900 lin. ft. 18-in. vitrified pipe; latter requires clearing 25 acres, grubbing 400 stations, excavating 48,000 cu. yds. and 700 lin. ft. 18-in. vitrified pipe; plans and specifications on file with Highway Dept., Courthouse, and may be obtained for \$5.

Road Construction.—Lake County Comms., J. H. Compton, Chrmn., Tavares, Fla.—Bids until April 16 to furnish labor, material and machinery and construct roads; 1,091,046 lin. ft. roadway, 329,630 cu. yds. excavation, 1,147,610 sq. yds. pavement, 301.62 cu. yds. concrete, 1554 lbs. square deformed steel, 5146 lbs. R. C. steel, 65 ft. 24-in. drains, 125 ft. 18-in. drains, 435 ft. 15-in. drains, 260 ft. 12-in. drains, 1552 ft. pole line to be moved, 57 bridges to be raised; bids invited on sand-clay, shell, modified asphalt, plain macadam water-bound, macadam with "Roc-Mac" binder, macadam oiled; type of surfacing to be determined after bids are submitted; plans and specifications on file with H. H. Duncan, County Clerk, and J. B. McCrary Co., 1408-1417 Third National Bank Bldg., Atlanta, Ga.; specifications obtainable from County Clerk or Engrs.; copies of plans from Engrs. for \$25.

Roofing.—J. T. Pratt, Tiptonville, Tenn. Prices on metal roofing for 17-room hotel.

Roofing.—Geo. Feltham, St. Petersburg, Fla.—Prices and data on composition roofing.

Roofing.—A. B. Hall, Pulaski, Va.—Prices on roofing materials for residence.

Roofing.—S. M. McMurray, 50 Arcade Bldg., Nashville, Tenn.—Prices on roofing and sheet metal columns.

Safes, etc.—See Bank Furnishings.—Thos. J. Nelson.

Screw Machinery.—See Machine Tools, Wilmington Iron Works.

Seating.—T. W. Lipscomb, Chrmn. of Com. First Baptist Church, Rome, Ga.—Prices on church pews.

Seed Dealers.—W. B. Bishop, Waukegan, Fla.—Addresses of Southern wholesale seed dealers.

Sewerage Construction.—City of Coshocton, O.—Will soon advertise bids for construction sewage-disposal plant, intercepting sewers and additions to sewer system after plans by Chester & Fleming, Engrs., Pittsburgh, Pa.; estimated cost \$86,000.

Sewer Construction.—See Electric-light and Sewerage Systems.—Board Bond Trustees, Pablo Beach, Fla.

Sewer Construction.—See Paving, etc.

Sewer Construction.—City of Drumright, Okla.—Receives bids in about 3 weeks for sewer construction; bond issue \$20,000. Address The Mayor.

Sewer Construction Materials.—See Water-works and Sewer Materials.—Jefferson, Ga.

Sewer Construction.—W. H. Tracy, Commr. of Public Works, Bradenton, Fla. Bids until Mch. 12 to construct storm sewer in Broad St. from Park to Chandler, Chandler St. from Broad to west end of Chandler, and 2 alleys; plans and specifications on file with City Engr. and will be furnished for \$2.

Sewer Construction.—City of Tulsa, Okla.—Bids at office City Auditor until Mch. 15 to construct sanitary sewer system with inlets, manholes, etc., in Sewer Dists. No. 97 and 55; interior diam. 8 in.; plans, profiles and specifications on file with T. C. Hughes, City Engr.

Sewer Construction.—Baltimore (Md.) Board of Awards.—Bids until Mch. 17 to construct storm-water drains, contract No. 43; 4650 lin. ft. 30 to 42-in. masonry drains, 8725 lin. ft. 12 to 24-in. vitrified pipe drains, 2230 lin. ft. 12 to 18-in. inlet connections, 10 manholes and 90 inlets; plans on file with Calvin W. Hendrick, Chief Engr. Sewerage Com.; specifications and plans obtainable from Harry W. Rodgers, Secy. Sewer Com., 904 American Bldg., for \$5.

Shafting.—D. F. Hinton, Equality, Ala.—Addresses of manufacturers of small flexible shafting.

Shear.—See Briquetting (Fuel, Garbage) Machinery.—G. E. Richmond.

Sheller (Nut).—Morgan H. Grace, Great Neck, N. Y.—Prices on small peanut sheller, preferably hand-driven, for plantation, Americas, Ga.

Shoe Machinery.—Bergman Shoe Co., H. W. Bergman, Prest., care Hamilton Brown Shoe Co., Columbia, Mo.—Prices on machinery to equip factory with daily capacity 1000 pairs house slippers; boilers and engines included.

Stationery.—See Bank Furnishings.—Thos. J. Nelson.

Stave and Heading Machinery.—W. M. Drennen, care Drennen Co., 2001 2d Ave., Birmingham, Ala.—Prices on machinery to manufacture barrel heads and staves from pine timber; also on barrel staves of hard wood.

Steam Shovel.—Box 344, Williamson, W. Va.—Small revolving steam shovel; Marion No. 28 or No. 31, or Bucyrus No. B; latest improved and slightly used; Williamson delivery.

Steel Reinforcing Bars, etc.—Panama Canal, F. C. Boggs, Gen. Purchasing Officer, Washington, D. C.—Bids until Mch. 30 to furnish steel reinforcing bars, steel cable, chain, poultry netting, coupler knuckle pins, machine bolts, pipe fittings, copper sheathing, shovels, track chisels, haps and staples, hinges, engine lubricators, starting compensator for motor, grease cups, basin traps, valves, cocks, paint brushes, flax packing, doormats, chair seats, water coolers, chinaware, agate pitchers, teaspoons, cardboard, paper, sulphate of copper, gasoline and lard oil; blanks and general information relating to this circular (No. 906) may be obtained from this office or offices of assistant purchasing agents, 21 State St., New York; 614 Whitney-Central Bldg., New Orleans, and 1086 North Point St., San Francisco; also from U. S. Engr. offices in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Commercial Club, Tacoma, Wash.

Stills.—See Turpentine Machinery, etc.—Lloyd H. Grandy, care B. E. Grandy & Sons, Alvin, S. C.

Sugar.—Navy Dept., Bureau Supplies and Accounts, Samuel McGowan, Pay-Gen., Washington, D. C.—Bids opened Mch. 23 on 3,050,000 lbs. sugar, schedule 7998, delivery navy-yards, Brooklyn, Philadelphia, Norfolk.

Syrup (Cane) Mill.—Gilbert Industrial College, R. J. Reynolds, Baldwin, La.—Mill and kettles, 10 to 20 tons capacity, for manufacturing ribbon cane syrup.

Telephone System.—W. B. Cullen, City Clerk, Ludlow, Ky.—Bids until Mch. 18 for franchise for telephone and telegraph system; ordinance on file.

Tools.—C. Hubert Ellis, 133 on 33 Rue Vauban, Cherbourg, Manche, France.—Interested, view to representation, in small tools.

Toys.—C. Hubert Ellis, 133 on 33 Rue Vauban, Cherbourg, Manche, France.—Interested, view to representation, in toys.

Tubing (Tin).—Eagle Novelty Co., Box 671, Wilmington, N. C.—Addresses of manufacturers of 1/4 or 3/16-in. tin tubing. (See Jars, etc.)

Turpentine Machinery, etc.—Lloyd H. Grandy, care B. E. Grandy & Sons, Alvin, S. C.—Prices on refort, with column still connected, for destructive distillation of naval stores from lightwood; 1 cord capacity; also data on manufacture of naval stores products, including sales prices, etc.

Vacuum Cleaner.—S. D. Ferguson, Roanoke, Va.—Prices and data on vacuum cleaner for \$25,000 residence.

Washing Machines.—See Briquetting (Fuel, Garbage) Machinery.—G. E. Richmond.

Water Wheels.—See Electrical Machinery.—Oklahoma Spring Water & Power Co.

Water-works and Sewer Materials.—City of Jefferson, Ga.—Bids until Apr. 19 on water-works and sewer materials and equipment: 150 tons 6 and 8-in. cast-iron pipe, class B; 6 tons cast-iron specials; 25 6-in. 2-way hydrants; 10 6 and 8-in. gate valves; 250 bbls. Portland cement; 11,000 lin. ft. 1 1/2-in. galvanized service pipe and fittings; 11,000 lin. ft. 8-in. and 2100 ft. 10-in. vitrified sewer pipe and fittings; 5 5-in. P. F. T. siphons; cast-iron manhole covers; 50,000 brick; crushed stone for concrete; clean sand; lumber; 12-ft. gravity filter and agitator; 24-ft. subsidence and 2 chemical tanks; all hydraulic equipment, etc.; 50 H. P. gasoline engine; 37 1/2 K. W. belted generator, 3-phase, 60-cycle, 240 volts; switchboard panel and appurtenances; one 350 G. P. M. motor-driven centrifugal pump, 50-ft. head, and one of 250-ft. head; all f. o. b. Jefferson; Solomon-Norcross Co., Engr., Atlanta, Ga.

Well-drilling.—City Clerk, J. M. McGinnis, Caruthersville, Mo.—Bids until Mch. 22 to drill 10-in. deep well; specifications obtainable from City Clerk and from Frank L. Wilcox, Consult. Engr., Syndicate Trust Bldg., St. Louis.

Wharf Construction, etc.—Port Commissioners, F. W. Bruce, Chief Engr., Jacksonville, Fla.—Bids until Mch. 20 to construct timber wharves at municipal dock

terminals and railroad embankment from point connecting with St. Johns River Terminal Co. near 21st St. and extending on curve to or near Evergreen Ave., about 1300 ft.; yardage about 600.

Wheels (Locomotive).—Pennsylvania Equipment Co., Philadelphia, Pa.—Pair drive wheels, with steel tires, about 26-in. diam., for 26-in. gauge locomotive.

Woodworking Machinery.—See Bung Machinery.—Dixie Lumber Co.

Woodworking Machinery.—See Stave and Heading Machinery.—W. M. Drennen.

Wood Screw Machinery.—See Machine Tools.—Wilmington Iron Works.

FINANCIAL NEWS

FINANCIAL CORPORATIONS

Ky., Louisville.—Inter-Southern Life Insurance Co. Incptd.; capital \$300,000; surplus \$175,000; James R. Duffin, Prest.; W. W. Moore, 1st V.-P.; George G. Summers, Secy.; John H. Leather, Treas. Business has begun.

Ga., Dooling.—The Weathers Banking Co., a private bank, has been converted into State bank; capital \$25,000; Dr. A. H. Weathers, Prest.; Geo. E. G. Weathers and W. H. Martin, V.-Ps., Dooling; Dr. T. A. Mathews of Darien, Ga.

Ga., Monticello.—Bank of Monticello has made application for charter; capital \$25,000; surplus \$5000. Among those interested are H. K. Miller, O. Z. Olin, R. L. Eaton, R. C. Simpson, William E. Evans and J. M. Henry, Jr.

Ky., Middlesboro.—Middlesboro Savings & Building Association, capital \$100,000, is Incptd. by H. F. Hambright, J. S. Wright, W. V. Tennant, G. T. Cleland, F. Mooman, T. H. Curd, C. N. Bailey, H. E. Motch and J. M. Rogan.

La., Crichton.—Crichton State Bank is organized with \$10,000 capital. Among those interested is B. W. Marston.

Mo., Butler.—Denton-Coleman Loan & Title Co. chartered; capital \$30,000. Incptrs.: C. A. Denton, F. T. Clay and P. B. Price.

N. C., Bolton.—Bolton State Bank has made application for charter; capital \$10,000; incorporators, F. L. Finkenstaedt, E. F. Carpenter and Frank Groves.

N. C., Raleigh.—Citizens' Insurance Agency is Incptd. with \$10,000 capital by G. H. Andrews, G. H. Dortch, F. K. Ellington and L. G. Richardson.

Okla., Oilton (not a P. O.).—A. T. Allison, Cash. National Bank of Tulsa, denies report that he is interested in proposed bank for Oilton.

Okla., Mountain View.—Bank of Mountain View chartered; capital \$15,000; began business Feb. 15; A. P. Smelser, Prest., Oklahoma City; C. W. Smelser and T. B. Donnell, V.-Ps. S. C., Charleston.—Germania National Bank, succeeding the Lower King Street Branch of the Germania Savings Bank, is chartered; capital \$200,000; surplus \$400; Henry Schachte, Prest.; J. H. Jahnz, V.-P.; Walter Willman, Cash.; H. J. Hollman, Asst. Cash. Business began Feb. 20.

S. C., Greenville.—A new bank is reported being organized by William Goldsmith and others.

Tenn., Athens.—Merchants and Farmers' Bank is reported being organized with \$100,000 capital and \$10,000 surplus. N. Giles Carter of Tellico Plains, Tenn., is interested.

Tenn., Collierville.—Plan to organize a new bank at Collierville has been abandoned, according to a letter from Samuel Hinton, who was among those interested.

Tex., El Paso.—The El Paso Cattle Loan Co. is organized with a paid-up capital of \$50,000 by Nelson Morris and Edward Morris, Jr., of the firm of Morris & Co., Chicago. Offices will be in the American Trust and Savings Bank.

Tex., Lubbock.—Lubbock State Bank and the First National Bank are reported consolidated under the name of the former institution; capital \$100,000; O. L. Slaton, Prest.; H. B. Reed and W. K. Slaton, V.-Ps.; W. S. Posey, Cash.; F. W. Boerner and O. L. Porter, Asst. Cashs.

Tex., Santa Anna.—First State Bank, succeeding the First State Bank & Trust Co., is chartered; capital \$35,000. Dr. T. M. Hays, Prest.; Leon L. Shield, V.-P., and Lemon Brown, Cash.

NEW SECURITIES

Ala., Birmingham.—Apr. 12 election will be held to vote on \$1,250,000 of bonds to finance floating indebtedness. H. S. Ryall is City Clerk.

Ala., Camden.—Election will be held Mch. 20 to vote on \$25,000 5 per cent. 15-year Wilcox county road and bridge bonds; denomi-

nation \$500 and \$1000. J. N. Stanford is Judge of Probate.

Ala., Elba.—\$11,000 sanitary sewer and 60,000 water bonds are voted. W. M. Tucker is Mayor.

Ark., Hampton.—\$6500 6 per cent. 5-20-year School Dist. bonds have been purchased by Gunter & Sawyers of Little Rock; denomination \$500.

Ark., Helena.—Comms. Cotton Belt Levee Dist. No. 1 deny report that levee bonds were offered for sale Mch. 3.

Ark., Marion.—Bids will be received by Board of Directors St. Francis Levee Dist., Greene county, until noon Mch. 24 for \$104,000 funding and \$271,000 levee-improvement completion bonds. O. N. Killough is Prest. of Board.

Ark., Moro.—\$12,000 6 per cent. Moro School Dist., Lee county, agricultural high school bonds have been purchased by Gunter & Sawyers, of Little Rock.

Fla., Bartow.—\$10,000 6 per cent. 20-year bonds School Dist. No. 7, Polk county, have been purchased by C. W. McNear & Co., Chicago, at 103.15.

Fla., Bartow.—\$6000 6 per cent. 20-year bonds Special Tax School Dist. No. 9, Polk county, were recently voted. Address Board of Public Instruction.

Fla., Brooksville.—Dispatch to Manufacturers Record says \$250,000 5 per cent. Hernando county funding and highway bonds offered Mch. 6 have been purchased by A. B. Leach Co., New York, at 95 and accrued interest.

Fla., Clearwater.—Election to vote on \$15,000 bonds Green Springs School Dist., Pinellas county, will be held Apr. 3. Dixie M. Hollins is Secy. Board of Public Instruction Pinellas County.

Fla., Daytona.—Election will probably soon be called to vote on \$350,000 Daytona Dist., Volusia county, road bonds. J. D. Mailey is member Board of Comms.

Fla., Gainesville.—Bids will be received until Mch. 20 by J. L. Kelley, Secy. Board Public Instruction, for \$30,000 5 per cent. 16-year bonds Gainesville School Dist. No. 28, Alachua county; denomination \$1000; also for \$6000 6 per cent. 1-12-year bonds High Springs School Dist. No. 47, Alachua county; denomination \$500.

Fla., Ft. Pierce.—\$25,000 6 per cent. 15-year bonds Special Tax School Dist. No. 14 (Fellsmere), St. Lucie county, are voted. Address School Comms.

Fla., Inverness.—Election is to be held Apr. 3 to vote on \$50,000 5 per cent. Citrus county refunding bonds. Address County Comms.

Fla., Largo.—\$20,000 water-works, \$4000 city hall and \$11,000 street-paving bonds are voted. Address The Mayor.

Fla., Micanopy.—\$10,000 6 per cent. 20-year electric-light bonds were recently purchased by J. B. McCrary Co., Atlanta, and subsequently sold to Chas. S. Kidder & Co., Chicago.

Fla., Miami.—Election will be held in Dade county Apr. 20 to vote on \$100,000 Ingraham highway bonds. Address County Comms.

Fla., Miami.—The \$100,000 Dade county road bonds to be voted on Mch. 23 are 5 per cent; dated July 1, 1915; denomination \$1000. Address County Comms., S. A. Belcher, Chrmn.

Fla., Tarpon Springs.—Bids will be received until 10 A. M. Apr. 6 for \$25,000 6 per cent. 25-year \$1000 bonds Tarpon Springs School Dist.; dated May 1, 1915. Address Dixie M. Hollins, Secy. Board of Public Instruction Pinellas County, Clearwater, Fla.

Fla., Tavares.—Bids will be received until 11 A. M. Mch. 8 for \$10,000 6 per cent. bonds Unatilla Special Tax School Dist., Lake county. Address Board of Public Instruction.

Fla., West Palm Beach.—The \$750,000 road-construction and \$50,000 refunding bonds to be voted on Mch. 23 are 5-30-year 5 1/2 per cents; dated July 1, 1915; maturity July 1, 1920 to 1945. F. E. Encell is Chrmn. Board of Comms. Palm Beach County.

Ga., Augusta.—Report that \$250,000 4 1/2 per cent. 30-year flood-protection bonds have been purchased at \$246,752.50 by Harris, Forbes & Co., New York, is confirmed in information from Augusta.

Ga., Alma.—The \$15,000 water-works bonds voted on Mch. 3 are 30-year 5 per cent; denomination \$500. Address W. L. Thompson.

Ga., Ellaville.—\$10,000 school-building bonds are voted. Address Dist. Comms.

Ga., Richland.—The \$30,000 sewer, water and electric-light-plant bonds to be voted on Mch. 24 are 5 per cents; dated Jan. 1, 1915; payable 1926-1940; denomination \$1000. J. N. Moses is Mayor.

Ga., Trenton.—Bids will be received until noon Apr. 6 for \$60,000 5 per cent. 20-year \$1000 Dade county road bonds. Address


[For Additional Financial News, See Page 58.]

Merchants-Mechanics National Bank
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JNO. B. RAMSAY, V.-P. and Chm. Bd. of Dir.
JOHN B. H. DUNN, Cashier.
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WM. G. TAYLOR, Vice-Pres. and Treasurer.
HARRY W. DAVIS, Vice-Pres. and Secretary
W. W. PUSEY, 2d, Title and Real Estate Officer

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Hopkins Place, German and Liberty Streets
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August 9th, 1913, Surplus and Profits, \$764,091.00
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R. VINTON LANSDALE, Cashier.
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MERCANTILE TRUST AND DEPOSIT COMPANY
OF BALTIMORE
A. H. S. POST, President F. G. BOYCE, Jr., Vice-President

Board of Comms. Roads and Revenue Dade County, I. H. Wheeler, Chrmn. *Further particulars will be found in the advertising columns.*

Ky., Barboursville.—\$200,000 4 per cent. Knox county road and bridge bonds are voted. Address T. G. Hammons.

Ky., Henderson.—\$18,300 6 per cent. Henderson county drainage district bonds have been purchased by the Hanchett Bond Co.

Ky., Hickman.—Election will probably be held in Fulton county May 22 to vote on \$300,000 road bonds. Address County Commissioners.

Ky., La Grange.—\$100,000 5 per cent. Oldham county road and bridge bonds are to be voted on April 20; denomination not less than \$100 nor more than \$1000. S. E. D. Haven is County Judge.

Ky., Lexington.—\$15,000 6 per cent. 30-year funding bonds have been purchased by John Nuveen & Co., Chicago.

Ky., Ludlow.—\$30,000 school bonds defeated.

Ky., Madisonville.—Election will probably be held in Hopkins county May 8 to vote on \$300,000 road and bridge bonds. Address County Comms.

Ky., Maysville.—Election is to be held in Mason county May 15 to vote on \$200,000 pike bonds. Address County Comms.

Ky., Seebree.—All bids received Mch. 1 for \$14,000 5 per cent. 20-year water bonds were rejected, and new bids will be received until Apr. 5. Vernon Sullinger is City Clerk.

La., Bastrop.—\$15,000 5 per cent. 10-year bonds School Dist. No. 8, Morehouse parish, recently reported sold, were purchased by Powell, Garrard & Co., Chicago, at 95% plus accrued interest.

La., Gretna.—Bids will be received until 6 P. M. Mch. 30 for \$40,000 bonds Subdrainage Dist. No. 2 of the Fourth Jefferson Drainage Dist., Jefferson parish. Address Ernest Arnoult, Secy., R. F. D. Station B, New Orleans, or H. L. Favrot, 608 Hennen Bldg., New Orleans.

La., Jennings.—Election is to be held in Jefferson Davis parish in April to vote on \$400,000 road bonds. Address Police Jury.

La., New Orleans.—The Public Belt Commission will request the Commission Council to call for bids for \$350,000 of improvement bonds.

La., Plaquemine.—Ordinance has been prepared providing for the issuing of \$42,000 5 per cent. 34-year \$1000 water-works bonds voted last September. Peter G. Wilbert is Mayor.

La., Port Allen.—\$75,000 5 per cent. bonds West Baton Rouge parish are to be taken at par and accrued interest by Bank of West Baton Rouge at Port Allen.

La., Westover.—\$30,000 5 per cent. bonds Bayou Nolan Drainage Dist., Westover, West Baton Rouge parish, have been purchased by G. A. McWilliams, Steger Bldg., Chicago, contractor for the work.

Md., Upper Marlboro.—Bids will be received until noon Apr. 6 for \$7500 5 per cent. 30-year Prince George's county school bonds. Address E. S. Burroughs, Secy. School Board.

Miss., Clarksdale.—\$509,000 of an issue of \$1,000,000 5 per cent. levee bonds Yazoo-Mississippi Delta Levee Dist. have been purchased by Merchants' Loan & Trust Co., Chicago.

Miss., Hattiesburg.—Bids will be received until May 1 by B. Shelton, Clerk Road Commissioners' Dist. No. 5, Copiah county, for \$25,000 of an issue of \$150,000 6 per cent. road bonds.

Miss., Meridian.—Election will probably be called to vote on \$30,000 municipal street and sewer bonds. Address The Mayor.

Miss., Oxford.—Lafayette county is authorized by Board of Supervisors to issue \$10,000 6 per cent. bonds Road Dist. No. 3.

Miss., Starkville.—All bids received for the \$130,000 5 or 5½ per cent. \$500 First Supvrs. Dist., Oklahoma county, road bonds, offered March 1 were rejected, and bonds are now in hands of a committee for private sale. Address J. C. McCreight, Prest. of Board, or M. A. Saunders, Atty.

Miss., Tupelo.—\$40,000 5 per cent. street-improvement bonds have been purchased at par by the People's Bank & Trust Co., Tupelo.

Mo., Hughesville.—Election is to be held in Hughesville School Dist., Pettis county, Mch. 18 to vote on \$5000 site-purchase and high-school-building bonds. Address Board of School Trustees.

Mo., Jamesport.—\$8000 6 per cent. 1-10-year electric-light bonds have been purchased by the Hanchett Bond Co., Chicago.

Mo., Kennett.—\$7000 5 per cent. 10-20-year sewer bonds are voted. S. G. Fisher is City Clerk.

Mo., Marshall.—Election is to be held in near future to vote on \$70,000 light and power plant bonds. Address The Mayor.

N. C., Ashboro.—\$15,000 6 per cent. Randleman township, Randolph county, road bonds were recently purchased by Hanchett Bond Co., Chicago.

N. C., Bakersville.—\$25,000 Bakersville township, Mitchell county, road bonds defeated.

N. C., Black Mountain.—\$10,000 street and sidewalks bonds voted last fall are reported sold at par. Address Board of Aldermen.

N. C., Granite Falls.—Bids were received until March 8 for \$25,000 6 per cent. 25-year \$1000 road bonds. Address County Comms., Caldwell county, Lenoir, N. C. D. M. Cline is Mayor of Granite Falls.

N. C., Greensboro.—\$100,000 5 per cent. 30-year street-improvement bonds have been purchased at \$590 premium by Mercantile Trust & Deposit Co., Baltimore, and Wachovia Bank & Trust Co., Winston-Salem, N. C.; dated Dec. 31, 1914; maturity Dec. 31, 1944. T. J. Murphy is Mayor.

N. C., Newbern.—Election is to be held April 6 to vote on \$80,000 Newbern Dist., Craven county, road-improvement bonds. Address County Comms.

N. C., Old Fort.—\$15,000 6 per cent. 20-year water, sewer and light bonds were recently purchased by the Hanchett Bond Co., Chicago.

N. C., Raleigh.—Bids will be received until noon Mch. 22 for \$7,000 5 per cent. 30-year \$500 bonds for funding floating debt and making certain improvements. W. H. Sawyer is City Clerk. *Further particulars will be found in the advertising columns.*

N. C., Sanford.—\$100,000 5 per cent. 40-year Lee county road-improvement bonds have been purchased by Wachovia Bank & Trust Co., Winston-Salem, N. C., at par.

N. C., Statesville.—Bill is to be introduced in the Legislature authorizing Iredell county to issue \$100,000 of bonds to pay present indebtedness; interest not to exceed 6 per cent. Address County Comms.

N. C., Southport.—\$40,000 30-year water and sewer bonds are soon to be placed on the market; interest not to exceed 5½ per cent. Address The Mayor.

N. C., Warrenton.—Election is to be held to vote on water and sewer bonds. Address Town Comms.

N. C., Wilmington.—\$21,000 6 per cent. bonds New Hanover County Drainage Dist. No. 1 are being offered. Address M. F. H. Gouverneur, Secy. *Further particulars will be found in the advertising columns.*

N. C., Wilson.—Bids will be received until 7.30 P. M. Apr. 6 (postponed from Mch. 9) for \$80,000 5 per cent. \$1000 electric-light funding bonds; dated Apr. 1, 1915; maturity \$5000 annually Apr. 1, 1920 to 1935, inclusive. Address Theo. A. Hinnant, Clerk Board of Comms. *Further particulars will be found in the advertising columns.*

Okla., Chelsea.—\$30,000 6 per cent. sewer bonds have been sold at par and accrued interest. John L. Jones is City Clerk.

Okla., Okmulgee.—Election will be held April 6 to vote on \$150,000 Okmulgee county courthouse and jail bonds. Address County Comms.

Okla., Okmulgee.—Election was held Mch. 4 to vote on \$115,000 school bonds. Address Board of Education.

S. C., Charleston.—Petitions are being circulated asking that an election be held to vote on \$1,600,000 water-supply bonds. Address The Mayor.

S. C., Greenville.—Election will probably be held in April to vote on \$75,000 school-improvement bonds. Address Board of School Trustees.

S. C., Greenville.—Election will probably be called within 30 days to vote on \$40,000 hospital annex bonds. Address The Mayor.

S. C., Mullins.—Bids will be received until noon April 1 by Board of Trustees of Mullins High School Dist. for \$12,000 6 per cent. 20-year high-school bonds. F. Chalmers is Clerk Board of Trustees. *Further particulars will be found in the advertising columns.*

S. C., Orangeburg.—Question of issuing \$30,000 school and \$30,000 water and light bonds is under consideration. Address The Mayor.

S. C., Sumter.—\$10,000 5 per cent. Sumter county road-improvement bonds have been purchased by Tollettson & Wolcott Co., Cleveland, O. Address County Comms.

S. C., Union.—Bids will be received until noon Apr. 3 for \$25,000 4½ per cent. 20-year Union county bonds. Address J. T. Jeter, County Supvr. *Further particulars will be found in the advertising columns.*

S. C., Union.—Bids will be received until noon March 31 for \$25,000 20-40-year water-works improvement bonds; interest not to exceed 6 per cent. W. D. Arthur is Clerk and Treas. City Council. *Further particulars will be found in the advertising columns.*

S. C., Winnsboro.—Election is to be held Mch. 29 to vote on \$80,000 5 per cent. water-works and sewer bonds. Address The Mayor.

S. C., Westminster.—\$16,000 5 per cent. 20-40-year electric-light bonds, dated Oct. 1, 1914, are to be issued. Address Town Council.

Tenn., Centerville.—\$200,000 Hickman county road bonds defeated.

Tenn., Chattanooga.—Ordinances have passed the Legislature providing for the issuing of \$65,000 bonds for road across Lookout Mountain and \$125,000 for repairing bridge across Tennessee River. Address County Comms.

Tenn., Dresden.—Bids will be received until noon April 8 for 6 per cent. 5-20-year bonds Middle Fork and Spring Creek Drainage and Levee Dist. No. 1, Weakley county. Denominations, date and amounts of bonds to be fixed after the sale of the contracts for drainage, levee and ditch work. G. T. Mayo is Chrmn. of Board.

Tenn., Jellico.—\$150,000 5 per cent. 30-year Campbell county road bonds have been purchased at \$150,001.20 and accrued interest by First Savings Bank & Trust Co., Nashville, Tenn.

Tenn., Knoxville.—Bill is being prepared providing for an issue of from \$20,000 to \$25,000 of bonds to build Central High School. Address I. C. King, Chrmn., Knox County High School Board.

Tenn., Maryville.—Bids will be received until 1 P. M. Mch. 13 for \$100,000 of an issue of \$300,000 Blount county 5 per cent. 10-35-year pike bonds; denomination \$1000 or less. R. C. M. Reynolds is Chrmn. County Court.

Tenn., Sweetwater.—Election will probably be called to vote on \$10,000 of bonds for liquidating indebtedness of school board and providing additional buildings, etc., for public school, and \$5000 for street improvements. Address The Mayor.

Tex., Anderson.—\$65,000 bonds Road Dist. No. 5, Precinct 1, Grimes county, defeated.

Tex., Austin.—Attorney-General has approved the following securities: \$15,000 Brownwood sewer and school bonds; \$16,000 5 per cent. Mount Pleasant street improvement bonds.

Tex., Belton.—\$4000 bonds Road Dist. No. 16, Bell county, have been voted. Address County Comms.

Tex., Batson.—Batson School Dist., Hardin county, bonds are voted. Address Board of Trustees.

Tex., Beaumont.—\$150,000 5 per cent. Island Park improvement bonds defeated.

Tex., Bryan.—\$60,000 Millican Precinct, Brazos county, road bonds defeated.

Tex., Bryan.—\$400,000 Dist. No. 1 5 per cent. 40-year road bonds are voted. Address J. T. Maloney.

Tex., Bryan.—\$12,000 street-improvement bonds have been sold. H. Crenshaw is City Secy.

Tex., Denton.—As soon as the \$112,000 5 per cent. 10-40-year improvement bonds voted Feb. 2 are approved they will be put on the market. W. L. Foreman is Mayor.

Tex., Denison.—\$400,000 4½ per cent. school-improvement bonds have been purchased by C. E. Denison & Co. and Redmond & Co., New York, at 101.19 and accrued interest.

Tex., Ennis.—City proposes to issue 5 per cent. refunding bonds to take up \$7000 water-works, \$10,000 schoolhouse and \$13,000 road, bridge and street improvement bonds, bearing 6 per cent. Address The Mayor.

Tex., Fort Worth.—Avondale, Haslet, Blue Mound and Henrietta Dist., Tarrant county, have consolidated, and an election will probably be held to vote on \$10,000 of bonds. G. T. Bludworth is Supt. Tarrant County.

Tex., Grayson.—Election will be held in Grayson county Apr. 10 to vote on \$900,000 5 per cent. 40-year road bonds. Address County Comms.

Tex., Hillsboro.—Apr. 6 election is to be held to vote on \$5000 water-works, \$5000 sewer and \$5000 crematory bonds. M. W. Lovell is Mayor.

Tex., Houston.—Bids will be opened on Mch. 20, it is reported, for \$1,950,000 city bonds. Address Mayor Campbell.

Tex., Jefferson.—Election will be held Apr. 3 to vote on \$30,000 5 per cent. Dist. No. 8 school bonds, to be dated Apr., 1915, and mature in 30 years or canceled on certain dates. Bids will be opened after Apr. 18. Address G. W. Brown, Trustee, or P. G. Henderson, County Judge.

Tex., Kaufman.—Bids will be received until 11 A. M. Mch. 12 by Comms.' Court, Kaufman county, James A. Cooley, County Judge, for \$225,000 5 per cent. bonds Justice Precinct No. 2.

Tex., Marshall.—\$300,000 5 per cent. 40-year \$1000 Road Dist. No. 1, Harrison county, highway bonds have been purchased by Robins & Sons of Chicago at par.

Tex., McGregor.—\$25,000 5 per cent. McGregor Independent School Dist. bonds recently reported sold were purchased by the Citizens' State Bank & Trust Co., Dallas, Tex.

Tex., Mount Auburn (P. O. Dallas).—Election is to be held March 27 to vote on \$18,500 school bonds. James A. Robertson is Chrmn. Board of School Trustees.

Tex., Nocona.—\$3500 6 per cent. 40-year water-works-extension bonds will soon be placed on the market. Address W. T. Russell.

Tex., San Angelo.—Bids will be received until Mch. 22 by the Concho Valley Loan & Trust Co., as treasurer of city, for \$80,000 5 per cent. 10-40-year school bonds; dated May 1, 1914; maturity May 1, 1954.

Tex., San Antonio.—Report that city has for sale \$723,000 refunding bonds is denied by Fred Fries, City Clerk.

Tex., Sadler.—\$10,000 of school bonds have been sold. Address Board of Education.

Tex., Sumter.—\$10,000 Sumter county road-improvement bonds have been purchased by Tillotson & Wolcott Co., Cleveland, O.

Tex., Wichita Falls.—\$7000 5½ per cent. building bonds have been purchased at 115 premium by the Vandalla State Bank.

Tex., Wichita Falls.—\$45,000 paving bonds have been purchased by Natt T. Wagner, representing Sweet, Causey, Foster Co., Denver, at par and accrued interest, less attorney's fees.

Va., Brookneal.—Election is to be held to vote on \$25,000 improvement bonds. Address The Mayor.

Va., Blacksburg.—\$8000 6 per cent. 15-year \$500 school and sewer bonds were recently voted. Address R. T. Fagg.

Va., Fairfax.—\$50,000 5 per cent. 10-20-year bonds Providence Magisterial Dist., Fairfax county, have been purchased at \$101.05 per \$100 by Hambleton & Co., bankers, Baltimore.

Va., Gladys.—Report that \$25,000 of bonds are to be issued is denied in information received by Manufacturers Record.

Va., Lovingson.—\$35,000 Lovingson Dist., Nelson county, road bonds are voted. Address County Comms.

Va., Petersburg.—\$30,000 4½ per cent. 40-year street roadway bonds are reported sold at par. G. B. Gill is City Auditor.

Va., Richmond.—\$46,500 State century bonds have been purchased by the Sinking Fund Comms.

Va., Salem.—\$90,000 Cave Spring Dist., Roanoke county, road bonds defeated.

Va., Suffolk.—City Council proposes to issue \$40,000 street and sewer bonds. Address The Mayor.

W. Va., Charleston.—Election is to be held in Kanawha county Apr. 24 to vote on \$115,000 district road bonds, as follows: Malden, \$45,000; Loudon, \$75,000; Union, \$50,000; Pocahontas, \$25,000; Charleston, \$60,000; Jefferson, \$50,000. Address County Comms.

W. Va., Charleston.—\$465,000 5 per cent. 10-year paving and sewer bonds, dated Jan. 1, 1915, are to be put on the market. Address The Mayor.

W. Va., Keyser.—If the \$25,000 5 per cent. \$500 Keyser School Dist. bond election carries Mch. 10, they will be placed on the market about July 1. J. C. Sanders is Supt. Board of Education.

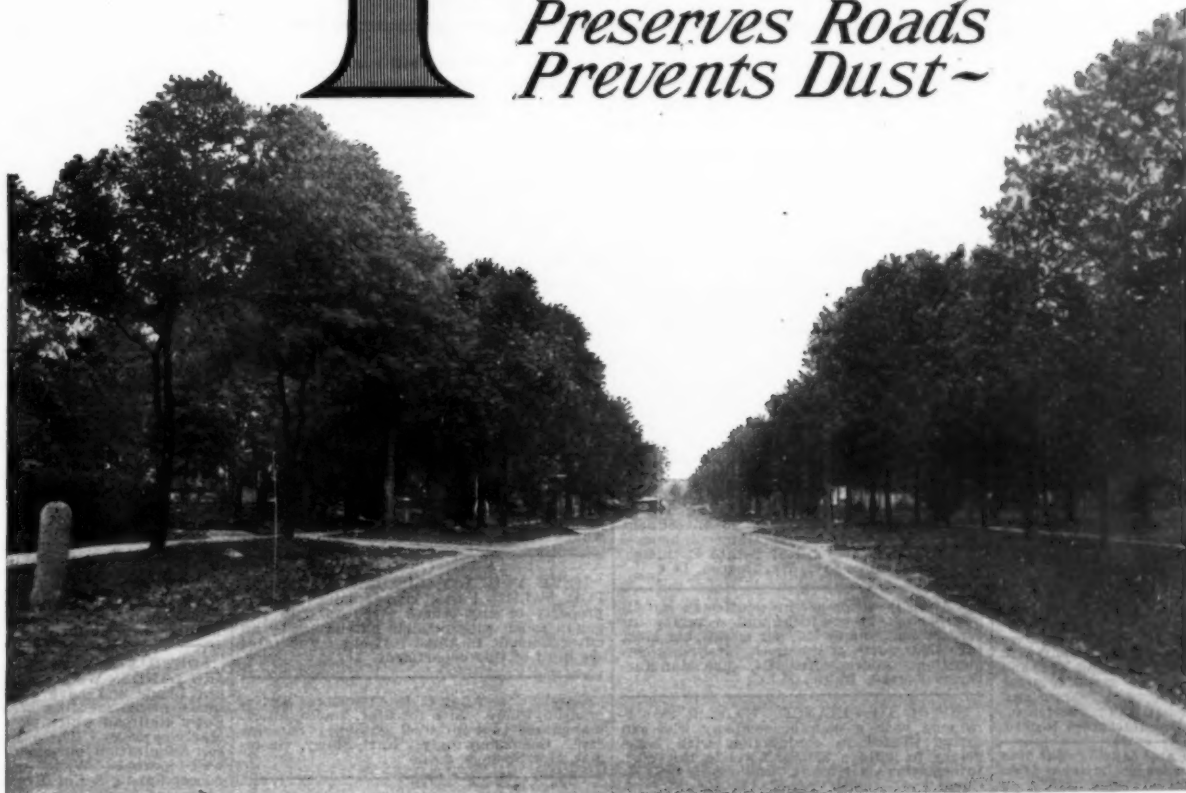
W. Va., New Martinsville.—Bids will be received until 1.30 P. M. Mch. 27 for \$75,000 6 per cent. 30-year Grant Dist., Wetzel county, road bonds. Address L. E. Lantz, Secy. care of Bank of Jacksonburg, Jacksonburg, W. Va. *Further particulars will be found in the advertising columns.*

FINANCIAL NOTES

The Virginia Bankers' Association is to hold its annual meeting this year on June 17, 18 and 19 at Old Point Comfort, Va.

Tarvia

*Preserves Roads
Prevents Dust~*



Wheaton Avenue, looking west
from Franklin Street,
Wheaton, Ill.
Tarvia "X"—Constructed 1912.

Wheaton's Experience with Tarvia—

ONE of the many towns which are using Tarvia on a vast scale is Wheaton, Ill., which has built several miles of "Tarvia X" construction, and also has used "Tarvia B" (a lighter form of Tarvia) for the prevention of dust on many of its other roads.

"Tarvia X" is a very dense, viscid, heavy coal tar product. It is used as a binder in the lower courses of a macadam road and has sufficient viscosity and strength to bridge the large voids in the foundations, thus enclosing the stone in a tough, plastic matrix, from which traffic can never dislodge it.

When a heavy load passes over an ordinary macadam road it sets up a certain amount of internal friction, where the stones in the lower courses grind and press against each other, and a certain amount of pul-

verization and disintegration results within the road itself.

In a road bonded with "Tarvia X", however, this internal attrition which forms such a serious problem for road engineers disappears entirely, and the result of the passage of an extremely heavy load is almost imperceptible. For preventing dust and preserving the surface of ordinary macadam roads "Tarvia B" is used in Wheaton. The city engineer of Wheaton writes:

"We have 23,000 yards of 'Tarvia X' construction. This type of pavement is ideal for residential sections, it being an enduring, lasting, and cheap pavement. Wheaton has also used 'Tarvia B' to a great extent for dust prevention. We find that the 'Tarvia B' preserves the road and keeps it in a dry, clean condition all four seasons of the year.

Yours very truly,

J. RUDDOCK, City Engineer."

Booklet about the treatment on request.

BARRETT MANUFACTURING COMPANY

New York Chicago Philadelphia Boston St. Louis Cleveland Cincinnati Pittsburgh
Detroit Birmingham Kansas City Minneapolis Salt Lake City Seattle
THE PATERSON MFG. CO., Limited: Montreal Toronto Winnipeg Vancouver St. John, N. B. Halifax, N. S. Sydney, N. S.



Classified Opportunities

MEN WANTED

IF QUALIFIED for executive, technical, mechanical, professional or administrative position carrying salary between \$2500 and \$12,000, write undersigned counsel, through whom strictly confidential preliminaries will be negotiated for important appointments. Send address only for prefatory details. R. W. Bixby, Lock Box 134-J4, Buffalo.

SALESMEN.—We have a liberal commission basis proposition to offer to men who can sell a high-grade line of paints to consumers. State age and present occupation in first letter. Address No. 1713, care Manufacturers Record, Balto., Md.

IF YOU ARE LOOKING FOR A GOOD MAN, an advertisement in these columns will fill your wants. Give it a trial and see how quickly you get together. For rates see block at head of department.

AGENCIES WANTED

WANTED.—Sales agency for all lines pertaining to builders' specialties; East Tennessee as territory; can furnish satisfactory references to interested concern; modern warehouse facilities. Address Daniel Briscoe, Jr., 325-327 State St., Knoxville, Tenn.

SITUATIONS WANTED

WANTED.—To represent manufacturers in South America; young man, 28, with knowledge of Spanish, will start in about a month; 9 years' selling experience. Address No. 1710, care Manufacturers Record, Balto., Md.

KAOLIN AND CHINA CLAY MANAGER, 20 years' experience, wishes position; familiar, and competent to develop mine and prepare this commodity at lowest cost; best of references. Address No. 1663, care Manufacturers Record, Balto., Md.

EXPERIENCED superintendent wants position, with architect or contractor, estimator and draftsman for planning mill. Address W. T. Vandegrift, Augusta, Ga.

PLANING-MILL estimator and detailer; 20 years' experience in listing work from blueprints, estimating, selling, detailing and billing; A-1 man and strictly sober. Address No. 1715, care Manufacturers Record, Balto., Md.

BUSINESS EXECUTIVE of good address and personality is open for engagement with progressive concern; 30 years of age and married; 10 years in the manufacturing business; specialist in credits, collections, accounting and systematizing; references. Address No. 1707, care Manufacturers Record.

AN EXPERIENCED and capable coal man in the prime of life, knows the business from A to Z, wants a position; can handle an office, sell on the road, or manage a coal works; have sold coal and coke from Omaha to Boston and know the markets and transportation; have opened up coal works and disposed of the output; married man of family; temperate habits. Address No. 1688, care Manufacturers Record, Balto., Md.

EDUCATIONAL

RENSSELAER POLYTECHNIC INSTITUTE, TROY, N. Y.—Courses in Civil, Mechanical, Electrical and Chemical Engineering and General Science, leading to the degree of Civil Engineer (C.E.), Mechanical Engineer (M.E.), Electrical Engineer (E.E.), Chemical Engineer (Ch.E.), and Bachelor of Science (B.S.). Also special courses. Splendidly equipped new engineering laboratories. Send for catalogue to Registrar.

MODELS

MODELS MADE FOR INVENTORS.—General machine work. Designing and perfecting. Developing automatic devices and machinery. In a position to do all kinds of light tool and machine work. Prices reasonable. Estimates cheerfully given. Ideal Machine Works, 64 Ann Street, New York City.

MANTELS AND TILE FLOORS

NORTHCROSS WOOD MANTELS AND TILE FLOORS for every purpose. Sold direct from factory to your home. All orders receive prompt attention. Every contractor should have a copy of our new catalog showing the largest line in America. Mailed free. W. J. Northcross Mantel Company, 73 Union Ave., Memphis, Tennessee.

ADVERTISING LITERATURE

SHREWD manufacturers reduce selling costs by marketing their products through rightly-written sales letters. Free booklet explains my direct selling service. William Cook, 249 Pearl St., New York.

LETTERHEADS, PRINTING, ETC

MULTIGRAPH LETTERS as we produce them are mechanically perfect. Send for samples and prices. The Stryker System, Lincoln, Nebraska.

RATES AND CONDITIONS

Rate 20 cents per line per insertion. Minimum space accepted, four lines. Maximum space accepted, 25 lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 15c. per line; 300 lines, 15c. per line; 500 lines or more, 15c. per line.

COLLECTIONS

SEND YOUR TEXAS COLLECTIONS to the Craig Mercantile Agency, Houston and Dallas.

BUSINESS OPPORTUNITIES

\$75 STARTS YOU IN BUSINESS selling adjustable form units for all kinds of concrete work, earning from \$75 to \$150 weekly. Our \$150 outfit has a capacity equal to another one form to each size make, costing \$43.25. Act quick before your territory is gone. Frick Manufacturing Co., Fricks, Pa.

EXPERIENCED MAN in farm land subdivision, having one of the best propositions in the South, would like to correspond with parties desiring to invest in safe, sound, legitimate proposition and assist in financing same. Address No. 1704, care Manufacturers Record, Baltimore, Md.

TAX PROBLEM SOLVED.—Confidential proposition submitted capitalists and property owners by letter suggesting highly profitable and absolutely safe investment free from burdensome taxation. Johnson's American & Foreign Real Estate Exchange, 926 Pennsylvania Ave., Washington, D. C.

WANTED.—Competent gentleman to fill position of vice-president and secretary for corporation; salary \$150 per month, but must take \$7500 worth of the stock; first-class corporation. Address No. 1714, care Manufacturers Record, Balto., Md.

HOTEL TO FINANCE.—We want to correspond with a man or company who can invest \$300,000 in conjunction with home money to build a \$500,000 hotel in this city. Information on request. Nethery & Co., 714 Cong. Ave., Austin, Texas.

FOR SALE.—Hardware store, furniture and undertaking establishment, flour mill, farms and timber, factory sites, Md. and Penna. Write W. E. Anderson, White Hall, Md.

START in the carpet or clothes cleaning business now. Thurman vacuum process unequalled for commercial cleaning. We show you how. Easily learned. Only \$125 capital needed to earn good income in towns of 2000 and over. We manufacture all types of vacuum cleaners from hand-power to 30 H. P. Write today for free booklet and state type desired. Thurman Vacuum Cleaner Co., Dept. E, St. Louis, U. S. A.

WE ARE CONSULTING ENGINEERS backed by a competent staff and a modern machine plant that can save you money if you are interested in designing or building special machinery, special tools, experimental work, models, etc. If you have patented an article which is not perfected, a consultation with our expert mechanic is at your command. We are giving attention to developing patents and marketing patented articles, especially labor-saving appliances. Our list of office appliances is available. We invite correspondence and will give estimates promptly and cheerfully. Specialty Manufacturing-Sales Corp., Norfolk, Va.

FACTORY SITES

BALTIMORE FACTORY AND TERMINAL SITES.—Statement of Asa G. Candler, President The Coca-Cola Co.; "Investigation convinced us that Baltimore is not only the commercial metropolis for Southern trade, but that it affords shipping opportunities both by water and rail for domestic and foreign traffic superior to any of the great cities in any section of the United States." Locate in Baltimore and derive these advantages. We can provide accommodations to meet your requirements. Wm. Martien & Co., 3 N. Calvert St., Baltimore, Md.

INDUSTRIAL PLANTS FOR SALE

FACTORY BUILDING

FOR SALE at Muncie, Ind.—One-story brick factory building, 40x125; steam heat; electric power; Belt R. R.; cost \$6000; price \$3500. Terms. I. N. Bullington, Huntington, W. Va.

INTERIOR TRIM PLANT

INTERIOR TRIM PLANT FOR SALE.—For quick sale, the best factory in the South for manufacture of furniture or interior trim. Special advantages in rates, taxes, labor, raw material, both yellow pine and hardwoods. Plant is new, fireproof, and insurance rate is 66 cents per \$100. Sale price is less than half the cost. Write for particulars and photographs. J. P. Mulherin, Trustee, Augusta, Ga.

BOILER, MACHINE AND BLACKSMITH SHOP

BOILER, machine and blacksmith shop in Illinois. Will sell entire plant or part interest to experienced manager. An especially good opportunity for the proper party. Decatur Novelty Works, Decatur, Ill.

MINERAL AND TIMBER LANDS, WATER POWERS AND MISCELLANEOUS PROPERTIES

35,000 ACRES Tenn. hardwoods, also small tracts up to largest, in all Southern States. Cut-over lands, ranches, wildlands. If wanting to buy or sell, write me. I may supply your wants. W. W. Marmaduke, Washington, Ind.

HAVE YOU A VALUABLE PROPERTY FOR SALE? Farm, timber land, mineral property or any other? We can help you get in touch with possible purchasers by an advertisement in these columns. For rates see head of this department.

BARYTES.—Want C. L. customers. Deliver anywhere. Also for flint, kaolin, silica, manganese (not for steel making). Samples free. Consumers only. Karl Shuey, Geologist, Hot Springs, Ark.

GOLD MINING PROPERTY

80-ACRE GOLD-MINING PROPERTY. TENN.—Property shows 3 veins of gold which assays \$5, \$10.50 and \$24 per ton. This is a real gold mine, the owner of which has not sufficient funds to develop the same and has authorized me to offer it for sale at \$20,000. Full details and copy of assay on request. Arthur M. Connor, Oxford Bldg., Washington, D. C.

WHITE MARBLE QUARRY

FOR SALE.—The whitest white marble in the country. The quarry is inexhaustible and is within 50 yards of a railroad. The stone will stand a pressure of 23,000 lbs. to the square inch. Address A. M. Hughes, 3310 Park Pl., Washington, D. C.

TIMBER LAND FOR SALE

FOR SALE.—TIMBER LANDS.—From 3,000,000 to 300,000,000 feet. D. D. Carter, 610 Carter Bldg., Hattiesburg, Miss.

TIMBER FOR SALE

FOR SALE.—40,000,000 feet of good timber, with sawmill and complete outfit; very low freight rates to Gulf ports; very cheap and on easy terms. James A. Terry, Mobile, Ala.

REAL TIMBER BARGAIN.—50,000,000 ft. 70% N. C. pine, poplar and cypress, all original growth; on Southern R. R. in South Carolina. Liberal terms and low price. J. P. Mulherin (owner), Augusta, Ga.

FOR SALE.—Hardwood timber on 5000 acres of mountain land immediately on railroad; principally oak, chestnut, hemlock and poplar; pay for as cut and sold. Address North Carolina Tale & Mining Co., Hewitts, N. C.

NURSERY STOCK

\$10,000 WORTH OF NURSERY STOCK GIVEN AWAY.—To introduce our high-grade, true-to-name, sure-to-bear, easy-to-sell fruit trees, we are offering for sale 1000 shares of stock of \$10 each, and with each share of stock we give a bond good for \$10 in nursery stock. Applicants must be white, reliable, and owners of real estate. Write today. Willis Valley Nursery Company, 902-3-4 Jefferson Co. Bank Bldg., Birmingham, Ala.

FRUIT, FARM AND TRUCK LANDS

THESE COLUMNS ARE CLOSELY READ BY PEOPLE for information of all kinds about Southern properties of every description. If you have a property of any kind that you want to dispose of, try an advertisement in these columns. Others have to their advantage. For rates see head of department.

ALABAMA

GOOD INVESTMENT.—We offer for sale 13,000 acres of best farm, fruit and stock-raising land in solid body, situated only a short distance from Bay Minette in Baldwin county, Alabama.

This land lies well, being level to slightly rolling, with several streams of running water through the tract, making it very desirable for colonization purposes.

This tract can be purchased for the low price of \$7 per acre. Will arrange terms. T. L. Moore & Co., Room 109 Masonic Temple, Mobile, Alabama.

ALABAMA CUT-OVER PINE LANDS.—2000 acres, \$15,500. 12,500 acres and 3000 acres at \$5.75 per acre; near railroad main line; 50 to 70 bushels corn raised to acre; excellent for stock or subdivision. J. B. Robertson, 56 North Royal, Mobile, Ala.

FLORIDA

FREE.—William L. Larkin's booklet, "The Truth About Florida," with a six-month subscription (at one-half regular rates) to The Indian River Farmer. Fruit growers, truckers, general farmers, folks interested in Florida, send 25c. to The Indian River Farmer, V-1, Vero, Fla.

THE PALATKA FARMS COMPANY of Palatka, Florida, offers to homeseekers the very superior advantages of splendid soil, adapted to potatoes, corn and trucking, or that for oranges and grapefruit, or for combination of both, with location unsurpassed, lying along the beautiful St. Johns River, 2 miles of Palatka, an up-to-date city of 8000 population. It boasts of electric-light and gas plants, four railroads and cheap river transportation. Write for literature. P. J. Becks, Palatka, Fla.

FOR SALE.—Seven-acre farm almost in the city limits of Jacksonville, Fla. If you want a farm that will support you handsomely and steadily increase in value, this is a bargain for you. Price \$6500. Long terms. J. M. Turner, owner, Box 1093, Jacksonville, Fla.

SOUTH FLORIDA FRUIT AND TRUCKING LANDS.—We are wholesalers of Southern Lands and have choice South Florida lands along the line of the Florida East Coast Railroad which we are offering at attractive prices. These are splendid lands for colonization purposes, being fertile and well located. Write us for particulars. Albert Fendig & Co., Brunswick, Georgia.

HAVE ANY KIND OF LAND to be found in South Florida and am too old to improve. Write me. W. H. Cox, M.D., Brooksville, Fla.

HAVE 23,500 acres of high (no swamp) land in Orange county, Florida, a few miles west of Orlando in the Lake region. This land can be bought right at this time. Write Chandler Campbell, Hamburg, Iowa.

I OFFER FOR SALE for sixty days some of the finest fruit and farm lands in Flk county, situated near the city of Lakeland, the best town in the best county in the State of Florida, in tracts of 5000 to 18,000 acres. For quick sale will sell at much less than actual value. It is on railroad. Geo. C. Barton, Lakeland, Fla.

FOR SALE.—82 acres of pine land and hammock land; 500 orange trees, 300 grapefruit trees; both are seedling and budded; 2000 boxes; 6-room house; 1 good stable; in 2 years 5000 boxes; close to the Calumet-hatchee River; 2 miles west of J. Belle Cash, \$14,000, or \$7000 cash down and balance 2 or 3 years with 8 per cent. J. N. Blount, owner, La Belle, Fla.

FOR SALE.—Timber, turpentine, grazing lands, colonization tracts, and farms in all parts of South; dividend-paying orange, grapefruit and pineapple groves; truck and farm lands, rural water-front and town residential properties, improved and unimproved properties of all kinds, boats and yachts in Florida. Write for our list. Waters Realty Co., Walton, St. Lucie Co., Fla.

PINEY POINT, the Deep-Water City. Other towns and would-be towns have to fight and wait for appropriations to get deep-water facilities.

Nature made it for us, and in addition gave us immunity from frost, for just north of Piney Point is the broad expanse of Tampa Bay.

Terrace Island and the Manatee River towns and farms have good water protection, but not deep water. We have both.

Also an abundant supply of artesian water for all purposes.

Nature laid the foundation. We are doing the rest. Will you join us? The Piney Point Land & Improvement Co., Palmetto and Piney Point, Fla. Jno. W. Jackson, Manager.

FOR SALE.—Astor Estate, Lake county, Florida, on St. Johns River, 10-acre tracts, \$40 to \$60 per acre. Terms, \$1 cash per acre and \$1 per acre per month. Literature free. Address J. F. Darneille, Box 65, Fort Moore, Va.

Classified Opportunities

FOR SALE—Water-front in small tracts on Manatee River, Florida; soil survey shows ideal citrus soil; fine home sites; boating, fishing; close to cities, Tampa Bay and Gulf resorts; flowing wells. Address Manatee River Land Co., Inc., 101½ Franklin St., Tampa, Fla.

LOUISIANA

TRACT of sandy land, about 1000 acres, on Mississippi River, twenty-eight miles from New Orleans; two railroads through property; fully equipped with building, etc. Apply F. Montegut, La Place, La.

FOR SALE—A sugar plantation containing 1250 acres, 800 of which are in cultivation of cane and corn. Have 40 head of mules, implements, etc. Land contains large homes for owners, cabins, stables, barns, and everything complete for operation of one of the finest pieces of land in Louisiana. Railroad through property. For particulars relative to price and terms address No. 1679, care Manufacturers Record, Balto., Md.

MARYLAND

LAKE SHORE FARM.—Over 318 acres, on good macadam road; good buildings; bank barn; right at wharf; \$35 per acre. J. S. Lathum & Co., 126-9 Law Bldg., Balto., Md.

MISSISSIPPI

FOR SALE—1400-acre plantation, 1100 in cultivation, 37 mules and horses, implements and corn to operate this year; large residence, barns, tenant-houses; on the beautiful and famous Lake Washington, in the heart of the Delta country, in Washington county, Mississippi; Yazoo & Mississippi Valley Railroad runs through property, and depot within a mile of residence; ideal for grain of all kinds, including alfalfa; also for cattle, stock and cotton. Reason for selling, owner has other interests requiring his attention. Walton Shields, Atty., Greenville, Miss.

FOR SALE—ON EASY TERMS.—Fine plantation, in the heart of the Yazoo Delta, in Bolivar county, the largest cotton producing county in Mississippi, consisting of 3000 acres, and upwards of 2000 acres in a high state of cultivation; a large acreage now in oats, trucking, sugar-cane, pastures and other diversification; sufficient mules and horses, corn, hay, implements, seed, etc., for the year 1915; has an up-to-date, improved system gin, electric-light plant, grist mill and blacksmith shop; a large two-story store and residence, a manager's residence and 90 tenant-houses, all practically new, built on brick piers, laid in cement; a new barn costing \$2500, with individual stalls, two silos and a dipping vat, and, in fact, everything necessary for an up-to-date, modern and model plantation. It has always been a money-maker. Main line of the Yazoo & Mississippi Valley Railroad runs in front of property for two miles. A railroad station and ticket office, express and post office on premises. Must sell on account of bad health. Address Louis Waldauer, Greenville, Miss.

TENNESSEE

FOR SALE OR EXCHANGE.—One or more acres, two miles due west city of 70,000, 15 minutes from street car, on pike; ideal environment; building sites and truck gardening. Address Room 1227 Holston Bank Building, Knoxville, Tenn.

VIRGINIA

VIRGINIA ESTATES.—Colonial homes, plantations, farms, suburban homes, Albemarle pippen orchards, timber lands. Write us for what you want. We have it. R. N. Flanagan & Co., Charlottesville, Va.

VIRGINIA FARMS.—Fine blue grass, grain and dairy farms in the heart of the Piedmont section of Virginia, Culpeper, Fauquier and adjoining counties. Ask for catalogue. The L. M. Allison Co., Real Estate Brokers, Remington, Va. Established 1895.

ESTABLISHED 1893.—From long experience we are thoroughly familiar with lands and values and have some genuine bargains listed. Tell us what you want and let us submit some special offerings. Southern Farm Agency, Lynchburg, Virginia.

WEST VIRGINIA

FOR SALE—Orchard 121 acres; best location in the East; fine soil; new house and barn; fine water; 2400 trees, all bearing. Will sell a vacant lot in Fairmont, W. Va. For prices and terms write S. W. Umstat, Keyser, W. Va.

FINANCIAL

AN UNUSUAL OPPORTUNITY to secure an interest in a splendidly equipped operation in the Pocahontas field, working the original No. 3 seam, 5 feet thick. The management is in the hands of the wealthiest and most successful operators in the field. Over \$400,000 has been spent on the improvements, and the works have never lost a day for want of orders. The large stockholders and directors represent a tonnage of several millions annually and a wealth of many millions of dollars.

Particulars as to the directors and stockholders will be furnished to bona fide interested parties. The unusual conditions prevailing for the past year compels the owner (a non-resident) to sacrifice the stock, which will be sold for \$50 per share, par value \$100, and it cost that. Terms easy; \$10 per share down and \$10 per share per month. Certificates in one-share lots or any number. Brokers protected. Address No. 1684, care Manufacturers Record, Balto., Md.

PATENT ATTORNEYS

"WORDS OF VALUE TO INVENTORS" sent free; should be carefully read before applying for patents. John R. Woodworth, Registered Atty., Ward Bldg., Wash., D. C.

PATENT YOUR IDEAS.—\$5000 offered for certain inventions; book, "How to Obtain a Patent" and "What to Invent," sent free upon request; send rough sketch for free report as to patentability. We advertise your patent for sale at our expense. Chandler & Chandler, patent attorneys, 978 F St., Washington, D. C.

EUGENE C. BROWN, ENGINEER AND PATENT LAWYER, Suite 40 Victor Building, Washington, D. C. Member Bar U. S. Supreme Court. Patents and Trademarks. Inventions are considered both from Engineering and Legal standpoints in my prosecution of patents. An experience of over 9 years as Examiner in U. S. Patent Office and over 6 years as Patent Expert in important patent suits are my special qualifications. Reports upon validity and infringement. Send sketch of invention for advice.

PATENTS THAT PROTECT AND PAY. Advice and books free. Highest references. Best results. Promptness assured. Trade-marks registered.

Watson E. Coleman, Patent Lawyer, 624 F St., Washington, D. C.

VALUABLE INVENTIONS justify only best legal service. Consult Vernon E. Hodges, Attorney-at-Law, Barrister Bldg., Washington, D. C. Practice before the U. S. Supreme Court; all Circuit Courts; Courts of the District of Columbia, and the U. S. and Foreign Patent Offices exclusively. Continuous practice since 1886. Extensive experience with all classes of invention, representing lawyers, manufacturers and inventors in every State.

C. L. PARKER, Patent Lawyer, formerly member Examining Corps, U. S. Patent Office, 924 G St., Washington, D. C. Patents secured. Patent suits conducted. Reports on the patentability of inventions, the scope and validity of patents, and whether any process or machine infringes existing patents. Reference to prominent manufacturers and pamphlet of instructions furnished upon request.

PATENTS.—Herbert Jenner, patent atty. and mechanical expert, 606 F St., Washington, D. C. I report free of charge if a patent can be had and its exact cost. Send for circular.

PATENTS secured or Fee returned. Send sketch for free report as to patentability. Guide book and what to invent, with valuable list of inventions wanted, sent free; \$1,000,000 offered for inventions. Patents secured by us advertised free in World's Progress; sample free. Victor J. Evans & Co., 12 Ninth St., Washington, D. C.

PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS

GOVERNMENT PROPOSALS

PROPOSALS FOR STEEL REINFORCING Bars, Steel Cable, Chain, Poultry Netting, Coupler Knuckle Pins, Machine Bolts, Pipe Fittings, Copper Sheathing, Shovels, Track Chisels, Haps and Staples, Hinges, Engine Lubricators, Starting Compensator for Motor, Grease Cups, Basin Traps, Valves, Cocks, Paint Brushes, Flax Packing, Doormats, Chair Seats, Water Coolers, Chinaware, Agate Pitchers, Teaspoons, Cardboard, Paper, Sulphate of Copper, Gasoline, and Lard Oil. Sealed proposals will be received at the office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 10.30 A. M. March 30, 1915, at which time they will be opened in public, for furnishing the above-mentioned articles. Blanks and general information relating to this Circular (No. 906) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State Street, New York City; 614 Whitney-Central Building, New Orleans, La., and 1066 North Point Street, San Francisco, Cal.; also from the U. S. Engineer Offices in the following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Md.; Philadelphia, Pa.; Pittsburgh, Pa.; Boston, Mass.; Buffalo, N. Y.; Cleveland, Ohio; Cincinnati, Ohio; Chicago, Ill.; St. Louis, Mo.; Detroit, Mich.; Milwaukee, Wis.; St. Paul, Minn.; Chattanooga, Tenn.; Louisville, Ky.; Mobile, Ala.; and Galveston, Tex.; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill.; and Commercial Club, Tacoma, Wash. F. C. BOGGS, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

U. S. ENGINEER OFFICE, Galveston, Texas, February 15, 1915. Sealed proposals for jetty and dike work at Aransas Pass, Texas, will be received at this office until 12 M. March 16, 1915, and then publicly opened. Information on application. C. S. RICHIE, Lieut.-Colonel, Engineers.

BOND OFFERINGS

\$12,000 6% School Bonds

Until 12 o'clock noon the first day of April, 1915, sealed bids will be received by the trustees of Mullins High School District for the purchase of twelve thousand dollars twenty-year six per cent. High School Bonds, interest payable annually. A certified check for \$500 is required to accompany each bid. The board reserves the right to reject any and all bids.

F. CHALMERS ROGERS, Clerk of Board of Trustees. Mullins, S. C., March 4, 1915.

PROPOSAL ADVERTISING INFORMATION

RATE: 20 cents per line per insertion.

PUBLICATION DAY: Thursday.

FORMS CLOSE 9 A. M. Wednesday. Copy received later cannot be published until issue of following week.

NIGHT LETTER: When too late to send copy by mail to reach us by 9 A. M. Wednesday, forward by night letter.

THE DAILY BULLETIN OF THE MANUFACTURERS RECORD:

Published every business day: gives information about the industrial, commercial and financial activities of the South and Southwest.

The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened, or when daily publications are necessary to meet legal requirements.

The same rate applies—20 cents per line per insertion.

Bond Sale Notice

Copiah County, Mississippi, Supervisors' District Number Five, 6 per cent. Road Bonds: \$25,000 of a \$150,000 issue to be sold on May 1, 1915. Submit all bids and communications to B. Shelton, Clerk of Road Commissioners of District No. Five, Hazlehurst, Miss.

Bonds For Sale

On Thursday, March 18, A. D. 1915, at 10 o'clock A. M., the Board of Bond Trustees of the City of Lakeland, Florida, will receive sealed bids at the Commissioners' Room in the City Hall, for the following municipal bonds:

\$130,000 of 5 per cent. Light and Water Bonds, due and payable \$3000 in 1925 and same amount each year thereafter until 1934. \$5000 annually beginning 1941 and continuing until 1961. \$1000 denominations.

\$20,000 of 5 per cent. Fire Department Bonds, due and payable \$2000 in 1932 and same amount annually thereafter until 1941. \$1000 denominations.

\$15,000 of 5 per cent. Hospital Bonds, due and payable \$1500 due 1932 and same amount annually until 1941. \$500 denominations.

All bids must be accompanied by a certified check for 1 per cent. of the amount of bonds bid upon. The Board reserves the right to reject any and all bids. All communications should be addressed to C. D. Clough, Secretary of the Board.

BOARD BOND TRUSTEES, Lakeland, Fla.

Bonds for Sale

\$21,000 6 per cent. bonds of the New Hanover County (N. C.) Drainage District No. 1, issued under the North Carolina Drainage Law of 1909. The District covers valuable suburban property near Wilmington. Address

M. F. H. GOUVERNEUR, Secretary, Wilmington, N. C.

For Sale—\$25,000 City of Union (S.C.) Water-Works Improvement Bonds

Sealed bids will be received and opened by the City Council of Union, S. C., up till noon March 31, 1915, for the purchase of twenty-five thousand dollars of City of Union, S. C., "Water-Works Improvement Bonds." Interest coupons payable semi-annually at a rate not exceeding 6 per cent. In denominations to suit the purchaser. Life of bonds forty years, with the privilege of redemption in twenty years, \$5-40s.

All bids must be accompanied by a certified check of five hundred dollars—2 per cent. The right is reserved to accept or reject any or all bids.

By order of the City Council.

W. D. ARTHUR, Clerk and Treasurer. Union, S. C., March 4, 1915.

Notice of Bond Sale

Sealed proposals for the purchase of seventy-five thousand dollars of Grant District, Wetzel County, West Virginia, 6 per cent. thirty-year Road Bonds will be received by the undersigned, to be opened at the Court-house in New Martinsville, West Virginia, on the 27th day of March, 1915, at 1.30 o'clock P. M.

Bonds are redeemable at par on and after December 1, 1915, at the option of the County Court of Wetzel Co., West Virginia.

Interest payable semi-annually on the first days of December and June.

Each bidder must deposit a certified check for 5 per cent. of amount bid, payable to C. M. Stone, Sheriff of Wetzel County, West Virginia, as a guaranty that they will take up and pay for the bonds as soon as same are signed and ready for delivery.

No bids for less than par and accrued interest will be considered, and the right is reserved to reject any and all bids.

Bids may be delivered in person on day of sale or forwarded by mail so as to reach the undersigned not later than March 25, 1915.

Address all communications to L. E. LANTZ, Secretary, Care The Bank of Jacksonburg, Jacksonburg, West Virginia.

\$80,000 Wilson, North Carolina, Electric Light Funding Bonds

Sealed bids will be received by the undersigned until 7.30 o'clock P. M. on April 6, 1915, for all or any part of the above bonds, bearing interest at 5 per cent. per annum, payable semi-annually, principal and interest payable in New York.

Denomination \$1000; dated April 1, 1915; maturing \$5000 annually April 1, 1920 to 1935, both inclusive. The legislative act and municipal ordinance authorize a tax levy without limit for payment of bonds and interest.

Bonds will be prepared and certified as to genuineness by the United States Mortgage & Trust Company, and approved by Caldwell, Massich & Reed, New York, whose favorable opinion will be furnished to the purchaser without charge.

A certified check for 2 per cent. of the face value of bonds bid for, payable to R. B. Simpson, Town Treasurer, must accompany each bid. Bids must be upon blank forms, which, together with other information, will be furnished by the undersigned or said Trust Company.

The right is reserved to reject any and all bids.

The bonds will be delivered in New York or Baltimore, at purchaser's option, on April 19, 1915.

THEO. A. HINNANT, Clerk, Board of Commissioners.

[CONTINUED ON NEXT PAGE.]

PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS

BOND OFFERINGS

\$25,000 4½% Bonds

Bids will be received until 12 M. Saturday, April 3, 1915, for \$25,000 4½ per cent. twenty-year Union County Bonds. Interest payable semi-annually. Certified check for \$500 to accompany bid.

Board County Commissioners reserve right to reject any and all bids.

J. T. JETER, County Supervisor,
Union, South Carolina.

Huntsville (Ala.) Municipal Bonds

The City of Huntsville, Ala., will receive sealed bids for its \$40,000 5 per cent. School Bonds on March 16, 1915.

Certified check five hundred dollars must accompany each bid.

Right to reject all bids reserved.

J. D. HUMPHREY, Mayor.

Vivian (La.) Water-Works Bonds For Sale

\$35,000 in serial bonds maturing in 30 years. Issued for the construction of a water system for the Town of Vivian, La. Bids will be received until 4 o'clock P. M. March 16, 1915. Rights reserved to reject any and all bids. For information address

J. D. HOUSTON, Clerk,
Vivian, Louisiana.

\$10,000 5% School Bonds For Sale

Plaquemine, La.

The School Board of Iberville Parish, La., will receive sealed bids for \$10,000 school bonds until 1.30 P. M. April 7, 1915. Bonds bear five per cent. per annum, payable annually, and may be arranged in denominations to suit purchaser. Those bidding are asked to submit bids which include their furnishing the blank bonds. Communications should be sent to the Secretary School Board, Plaquemine, La. The Board reserves the right to reject any or all bids.

L. E. MESSICK,
Secretary School Board.

\$60,000 Road Bonds for Sale

Trenton, Ga.

Notice is hereby given that the Board of Commissioners of Roads and Revenue of Dade County, Georgia, will receive sealed bids up to noon of April 6, 1915, for the sale of sixty thousand (\$60,000) dollars County Road Bonds, each bond to be of \$1000 denomination.

Said bonds to run for twenty years from September 1, 1914, bearing interest at the rate of five per cent., payable annually on January 1, but said bonds are to bear interest only from date of sale.

All bids must be accompanied by a certified check for one thousand dollars, made payable to I. H. Wheeler, Chairman, conditioned upon the faithful performance of all obligations upon the part of the successful bidder.

The Board of County Roads and Revenues reserves the right to reject any and all bids. Any further information will be furnished by the Secretary.

I. H. WHEELER,
Chairman;
G. W. CROSS,
W. C. CURETON,
Board of Commissioners.

By C. S. TURNER,
Secretary.

Notice of Sale of Bonds

Raleigh, N. C.

On Monday, the 22d day of March, 1915, at noon, in the office of the Mayor, the City of Raleigh will receive sealed bids for fifty-seven thousand dollars (\$57,000) of thirty-year five per cent. coupon bonds in denominations of five hundred dollars each, dated January 1, 1915. Bonds issued by authority of Act of the General Assembly of North Carolina, session 1915, and are for the purpose of funding floating debt and making certain permanent improvements.

Certified check for \$1000, payable to James I. Johnson, Mayor, will be required. Purchaser will be required to furnish blank bonds ready for execution.

Principal and interest will be made payable at any bank the purchaser may specify. Sinking fund is provided for.

Population of Raleigh, Census of 1910, 19,218. Estimated population now, 25,000.

Assessed valuation of property May, 1914, \$12,203,504.00
Actual value (estimated), 15,000,000.00
Tax rate on \$100, 1.25

Bonded debt, including this issue, \$1,374,500.00

Water-works bonds included, \$475,000.00

Sinking fund (cash and securities), 80,000.00

Property owner's notes, 100,000.00

655,000.00

Net debt, \$719,500.00

No floating debt.

W. H. SAWYER,
City Clerk.

March 5, 1915.

\$100,000 5% Road Bonds

Sealed bids will be received by the Board of Highway Commissioners of Swain County, N. C., until 1 P. M. April 10, 1915, for the sale of \$100,000 road bonds of Swain Road District, bearing 5 per cent. interest, payable semi-annually, and to mature as follows: \$5000 April 1, 1926, and \$5000 each year thereafter until including April 1, 1945. Interest and principal to be paid at the Bryson City Bank, Bryson City, N. C. All bids to be accompanied by a certified check for \$1000 on some responsible bank. Right reserved to reject any and all bids. Mail all bids to the undersigned marked "Sealed Bid."

FRANK E. FRY, Secretary,
Bryson City, N. C.

Notice of Bond Sale

Dallas, N. C.

Sealed bids will be received by the town of Dallas, N. C., until 6 P. M. Tuesday, April 6, 1915, for \$10,000 6 per cent. 30-year funding bonds.

Certified check of a national bank for 5 per cent. of bid to be enclosed. The right to reject any or all bids is reserved. No other indebtedness of the town. Assessed valuation of property is \$360,000. For further information address

DR. S. A. WILKINS,
City Treasurer.

March 3, 1915.

PAVING, WATERWORKS AND SEWERS

To Grading Contractors

Sealed bids will be received by the Police Jury, Calcasieu Parish, at the office of the Highway Department, Courthouse, Lake Charles, La., up to 10 o'clock A. M. April 6, 1915, for the construction of Highways 5 and 7.

Approximate estimate of quantities:

Highway No. 5—

Clearing 80 acres.

Grubbing 600 stations.

Excavating 90,000 cubic yards.

Vitrified pipe, 18-in., 900 lineal feet.

Highway No. 7—

Clearing 25 acres.

Grubbing 400 stations.

Excavation 48,000 cubic yards.

Embankment 5000 cubic yards.

Vitrified pipe, 18 in., 700 lineal feet.

Plans and specifications are on file at the office of the Highway Department, Courthouse, Lake Charles, La., and copies of same may be obtained upon payment of five dollars (\$5), which will be refunded upon receipt of a bona-fide bid and the return of the plans and specifications.

Each bid must be accompanied by a certified check or bidder's bond for \$1000 and \$2000, respectively, drawn on a bank doing business in Lake Charles and made payable to the Treasurer, Calcasieu Parish.

The Police Jury reserves the right to reject any or all bids.

E. C. HOUSE,
Clerk of Police Jury.

Notice to Paving Contractors

Charleston, W. Va.

Sealed proposals will be received by the Board of Affairs of Charleston, West Virginia, until 10 o'clock A. M. Wednesday, March 24, 1915, for curbing and paving fifteen (15) streets in the city of Charleston, West Virginia, containing approximately 40,700 ft. curb and 71,640 sq. yds. paving.

All well-known classes of paving material will be considered.

Payments will be made in cash on monthly estimates.

A certified check, payable to the order of Treasurer of The City of Charleston, amounting to two and one-half (2½) per cent. of bid, guaranteeing that successful bidder will enter into contract and furnish satisfactory bond to the amount of fifty (50) per cent. of the bid, must accompany each proposal.

The Board of Affairs reserves the right to reject any and all bids.

For plans and specifications or further information apply to G. S. Brown, City Engineer, Loewenstein Building, Charleston, West Virginia.

By order of the Board of Affairs.

O. A. PETTY,
President.

Hard-Surfaced Highways

LEGAL NOTICE.

Brooksville, Fla.

The Board of County Commissioners of Hernando County, Florida, will on the 6th of March, 1915, at twelve o'clock noon, at Brooksville, Florida, at the Clerk's office in the Courthouse, receive sealed bids for the construction of hard-surfaced highways in Hernando County, Florida, according to plans and specifications of said highways now on file in the Clerk's office at Brooksville, Florida, and in the office of Jaudon Engineering Co. of Savannah, Ga. Contractors to furnish all materials and labor. The Board reserves the right to reject any or all bids.

H. D. EVANS,
Chairman.

Attest:
M. H. SNOW, Clerk.

Oiling State Highway

STATE OF MARYLAND.
STATE ROADS COMMISSION,

601 Garrett Building,
Baltimore, Md.

PROPOSALS FOR OILING.

Sealed proposals for oiling 7 sections of State Highway, aggregating about 475 miles in length and requiring approximately 1,278,300 gallons of oil, as follows:

County.	Miles.	Gallons.
Salisbury Residency— Worcester, Somerset, Wilcomico, Dorchester, Caroline,	55.33	145,680
Chestertown Residency— Talbot, Queen Anne, Kent, Cecil,	61.96	156,037
Baltimore Residency— Harford, Baltimore,	83.88	238,776
Frederick Residency— Frederick, Carroll, Howard,	90.56	231,184
Cumberland Residency— Washington, Allegany, Garrett,	79.10	206,036
Hyattsville Residency— Montgomery, Washington Blvd., Annapolis Blvd.,	70.86	215,758
La Plata Residency— Charles, St. Mary's, Prince George,	34.14	84,832

Will be received by the State Roads Commission at its offices, 601 Garrett Building, Baltimore, Md., until 12 M. on the 16th day of March, 1914, at which time and place they will be publicly opened and read.

Bids must be made in writing for the work outlined in each Residency and upon forms which will be furnished by the State Roads Commission. Specifications will be furnished by the Commission upon application.

The successful bidder will be required to give a \$5000 bond and comply with the Acts of the General Assembly of Maryland respecting contracts.

The Commission reserves the right to reject any and all bids.

By order of the State Roads Commission, this 25th day of February, 1915.

O. E. WELLER,
Chairman.

WM. L. MARCY,
Secretary.

State Highway

STATE OF MARYLAND.
STATE ROADS COMMISSION.

NOTICE TO CONTRACTORS.

Baltimore, Md.

Sealed proposals for building two sections of State Highway, as follows:

Contract No. Wo-9—WORCESTER COUNTY: One section of road from Pocomoke toward Virginia State Line, about 1.50 miles in length. (Concrete roadway.)

Contract No. Wo-10—WORCESTER COUNTY: One section of road from Pocomoke toward Stockton, about 1.50 miles in length. (Concrete roadway.)

Will be received by the State Roads Commission at its offices, 601 Garrett Building, Baltimore, Maryland, until 12 M. on the 16th day of March, 1915, at which time and place they will be publicly opened and read.

Bids must be made upon the blank form contained in the book of specifications. Specifications and plans will be furnished by the Commission upon application and cash payment of \$1, as hereafter no charges will be permitted.

No bids will be received unless accompanied by a certified check for the sum of five hundred (\$500) dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond and comply with the Acts of the General Assembly of Maryland respecting contracts.

The Commission reserves the right to reject any and all bids.

By order of the State Roads Commission this 25th day of February, 1915.

O. E. WELLER,
Chairman.

WM. L. MARCY,
Secretary.

Street Paving

NOTICE TO CONTRACTORS.

Sealed bids will be received by the Council of the Town of Pulaski, Virginia, on Saturday, March 20, 1915, at 2 o'clock P. M., for building approximately seven miles of macadam and concrete streets in accordance with plans and specifications on file in the City Engineer's Office.

Plans and specifications may be obtained on the deposit of ten dollars with the town.

E. W. CALFEE,
Mayor.

M. S. HUDGINS,
City Engineer.

Street Paving, Drains, Etc.

Clearwater, Fla.

Sealed proposals will be received until 11 o'clock A. M. Friday, March 19, 1915, for brick or asphaltic concrete street paving, street drains and basins and concrete combined curb and gutter. Amount available, cash and certificates, \$45,500. Specifications, form of proposals, contract and plans may be seen at the office of the engineer, City Hall, or will be mailed upon application to the engineer accompanied by the payment of \$5. No refund. The right is reserved to reject any and all bids. R. T. DANIEL, Town Clerk. J. N. DREW, Town Engineer.

Electric Light and Sewerage System

NOTICE TO CONTRACTORS.

Sealed proposals will be received by the Board of Bond Trustees of Pablo Beach, Fla., at the Citizens' Bank, Jacksonville, Fla., for the construction of an electric light and sewerage system, until noon 20th day of March, 1915, at which time they will be opened and read publicly.

The work includes the furnishing of all labor, material and machinery, and equipment of every kind necessary to construct the above improvements according to plans and specifications. The approximate quantities are as follows:

Electric Light System.
172 Poles with necessary crossarms and pole line hardware.
5127 pounds weatherproof Wire.
16 Transformers.
48 Street Lights.
2 50-horse-power Oil Engines belted to 2 37½ H. P. A. Generators with exciters and switchboard.
1 10,000-gallon Steel Fuel Oil Tank.
1 Galvanized-Iron Building.

Sewerage System.
3265' 8" Pipe average depth 4.6'.
5815' 10" Pipe average depth 7.0'.
23 Manholes.

2 Automatic Flush Tanks.
17 Lampholes.
1 Electric-Driven Air Compressor.
1 Oil Engine-Driven Air Compressor.
1 Air Receiver.
2 50 6 P. M. Pneumatic Ejectors.
1 Ejector Pit.

3630' 8" Soil Pipe Force Main.

Each bid must be accompanied by a certified check on any State or national bank of Florida, or on a national bank of any other State, for 5 per cent. of the amount of bid, drawn to the order of Chas. H. Mann, Chairman Board of Bond Trustees.

Contract will be let either as a whole or in sections at the option of the Board of Bond Trustees.

Plans and specifications may be seen at the office of the City Clerk, Chairman of Board of Bond Trustees, or the Jacksonville office of the Engineers, No. 507 Atlantic National Bank Building.

Copies of plans and specifications may be obtained from the Chairman for a deposit of \$5, which will be refunded when plans and specifications are returned in good order.

The right is reserved to reject any or all bids.

CHAS. H. MANN,
Chairman Board of Bond Trustees.
THE J. B. MCCRARY COMPANY,
Engineers,
Atlanta, Ga., and Jacksonville, Fla.

Waterworks and Sewer Material

Jefferson, Ga.

Sealed bids on Water-works and Sewer material and equipment will be received by the City of Jefferson, Ga., not later than 6 P. M. on Monday, April 19, 1915. The following is an approximate list of quantities:

150 tons 6 and 8-inch C. I. Pipe, Class B.
6 tons C. I. Specials.
25 6-inch 2-way Hydrants.
10 6 and 8-inch Gate Valves.
1 15-ft. x 50-ft. Standpipe.
250 bbls. Portland Cement.
11,000 lin. ft. 1½-inch Galv. Service Pipe and Fittings.
11,000 lin. ft. 8-inch Vit. Sewer Pipe and Fittings.
2100 lin. ft. 10-inch. Vit. Sewer Pipe and Fittings.
5 5-inch P. F. T. Siphons.
15,000 lbs. C. I. Manhole Covers.
50,000 Brick.
Crushed Stone for Concrete.
Clean Sand.
Lumber.
1 12-ft. Gravity Filter and Agitator.
1 24-ft. Subsidence Tank.
2 Chemical Tanks.

All necessary Hydraulic and Mechanical Equipment and Appurtenances.

1 50 H. P. Gasoline Engine.

1 37½ K. W. Belted Generator, 3-phase, 60-cycle, 240 volts.

1 Switchboard Panel and Appurtenances.

1 350 G. P. M. Motor-Driven Centrif. Pump, 50-ft. head.

1 350 G. P. M. Motor-Driven Centrif. Pump, 250-ft. head.

Bids will be received on any or all of the above material f. o. b. Jefferson, Ga. The city reserves the right to reject any and all bids.

J. N. HOLDER,
Mayor.
HOMER HANCOCK,
City Clerk.
SOLOMON-NORCROSS CO., Engineers,
Atlanta, Ga.

PROPOSALS

SEWERS

WATER-WORKS

ELECTRIC LIGHT PLANTS

BRIDGES

Road Construction, Lake County, Florida

Tavares, Fla.

Sealed proposals will be received by the Board of County Commissioners of Lake County, Florida, at the office of the County Clerk in the Court House at Tavares, Florida, for the construction of a System of Roadways in Lake County, until Thursday, April 15, at 12 noon, 1915, at which time they will be opened and read publicly. The work includes the furnishing of all labor, material and machinery, and equipment of every kind necessary to construct the roadways according to plans and specifications. The approximate quantities are as follows:

1,091,046 lin. ft. roadway.
329,630 cu. yds. excavation.
1,147,610 sq. yds. pavement.
301.62 cu. yds. concrete.
1,554 lbs. square deformed steel.
5,146 lbs. R. C. steel.
65 feet 24" drains.
125 feet 18" drains.
435 feet 15" drains.
260 feet 12" drains.
1,552 feet pole line to be moved.
57 bridges to be raised.

Bids are asked on the following surfacing for roads: Sand-clay, shell, modified asphalt, plain macadam water-bound, macadam with "Roc-Mac" binder, macadam oiled. The type of surfacing to be used for different roads will be determined after bids are in.

Each bid must be accompanied by a certified check on a National Bank for 5 per cent. of the amount bid or an approved bid bond issued by a Surety Company authorized to do business in Florida, drawn to the order of the County Clerk, H. H. Duncan.

Plans and specifications may be seen at the office of the County Clerk or the Engineers. Specifications may be obtained from the County Clerk or the Engineers. Copies of plans may be obtained from the Engineers at \$25 per set to cover their actual cost.

The desire of the Board is to let the contract in as large sections as possible.

The right is reserved to reject any or all bids.

J. H. COMPTON, Chairman.
H. H. DUNCAN, Clerk.

THE J. B. McCARY CO., Engineers,
1408-17 Third National Bank Building,
Atlanta, Ga.

Winnsboro, S. C.--Construction Material

Sealed proposals will be received by the J. B. McCary Company, Engineers, at the office of T. A. Moore, Clerk of Joint Commissioners, Winnsboro, S. C., for furnishing all material and machinery for a water-works and sewerage system and improvements to light plant, until 11 A. M. March 23, 1915, at which time they will be opened and read publicly.

The approximate quantities are as follows:

1 72x16 boiler.
1 180 H. P. four-valve engine.
1 125 K. V. A. generator.
1 three-panel switchboard.
2 750 G. P. M. Underwriters' steam fire pumps.
1 250 G. P. M. centrifugal pump and 25 H. P. motor.
2 300 G. P. M. centrifugal pumps and 25 H. P. motors.
5 15 K. W. transformers.
1 75,000-gallon tank on 75' tower.
1 250 H. P. open-type feed-water heater.
1 6x4x6 feed pump.
341,000 brick.
6 bags fire clay.
124 barrels lime.
652 barrels cement.
236 tons stone.
23,566 pounds original pig lead.
1,793 pounds jute.
6,346 pounds reinforcing steel.
16,308 8" cast-iron pipe.
14,164 6" cast-iron pipe.
17,900 1 1/2" galvanized-iron pipe.
38 6" double-nozzle hydrants.
9 8" H. E. gate valves and boxes.
16 6" H. E. gate valves and boxes.
31 1 1/2" screwed gate valves and boxes.
9 tons cast-iron specials.
1,499 12" T. C. sewer pipe.
3,500 10" T. C. sewer pipe.
31,500 8" T. C. sewer pipe.
150 6" T. C. sewer pipe.
855 8"x6" T. C. Y branches.
850 6" Y caps.
79 manhole rings, covers (perforated), dust pans and rods.
15 flush tank rings and covers (solid).
8 lamp-hole castings.
3 single flush tank siphons.
12 hand flush tank valves.

Each bid must be accompanied by a certified check for 5 per cent. of amount bid, drawn to the order of the J. B. McCary Company, Engineers.

Each bid must be addressed to the J. B. McCary Company, Engineers, care T. A. Moore, "Clerk," Winnsboro, S. C. Specifications may be obtained from the Engineers by writing their Atlanta office.

The right is reserved to reject any or all bids.

THE J. B. McCARY CO., Engineers,
1408-17 Third National Bank Bldg.,
Atlanta, Ga.

Street Improvements and Sewerage

Kinston, N. C.

Sealed proposals will be received by the City Council of the City of Kinston, N. C., at the City Hall in Kinston, N. C., until 5 P. M. March 23, 1915, for Street Improvements and Sewerage.

The work will consist of about:
12,000 sq. yds. or more of Brick, Asphalt, Bitulithic or other pavement.
30,000 lineal feet of Concrete Curb and Gutter.
20,000 sq. yds. of Sidewalk.
8 miles of 8 to 18-inch Pipe Sewers.

Proposals must be marked "Proposal for Street Improvements" or "Proposal for Sewerage."

All bids must be upon blank forms provided in the proposal and contract and specifications.

Each bid must be accompanied by a certified check for \$1000 as an evidence of good faith.

Plans and specifications will be on file at the Clerk's Office in Kinston and at the office of the Engineer in Charlotte, and copies of the specifications, form of proposal, etc., will be mailed upon application to the Engineer at Charlotte, N. C., when accompanied by a check for ten dollars to insure their return within 30 days after the letting.

The right is reserved to reject any or all bids.

FRED I. SUTTON, Mayor.
GILBERT C. WHITE,
Charlotte, N. C.

BUILDINGS

Courthouse and Jail

NOTICE TO CONTRACTORS.

Ridgeland, S. C., March 1, 1915.

Sealed bids will be received at the office of the Clerk of Court for Jasper County, Ridgeland, S. C., until noon April 6, 1915, for the construction of the Jasper County Courthouse and jail buildings to be erected at Ridgeland, S. C.

Each bid must be accompanied with a certified check for the amount of \$1000, payable to J. E. Gill, Supervisor, as a guarantee that if awarded the contract the successful bidder will promptly enter into contract and furnish a surety bond as required by the specifications.

The right is reserved to reject any and all bids.

Drawings and specifications may be seen at the office of John P. Wise, attorney-at-law, Ridgeland, S. C.; the Builders' Exchange, Atlanta, Ga., and at the office of William A. Edwards, architect, 633 Candler Building, Atlanta, Ga.

Contractors wishing to bid may obtain drawings and specifications from the architect by immediately applying for same, accompanying application with a certified check in the amount of \$25, payable to him, as a guarantee that he will return the drawings and specifications to the architect after the bids are received without cost to the architect. Failing to return same forfeits the \$25 to the architect.

BOARD OF COUNTY COMMISSIONERS,
Jasper County, S. C.
J. E. GILL, Supervisor.

Proposal for Courthouse

Lincolnton, Ga.

Sealed proposals, addressed to Samuel L. Wilkes, Ordinary, Lincolnton, Ga., will be received until twelve o'clock noon March 15, 1915, for furnishing all material and labor required for constructing a two-story brick and frame courthouse building at Lincolnton, Ga.

Plans and specifications can be seen at office of Samuel L. Wilkes, Ordinary, Lincolnton, Ga., also at office of Architect G. Lloyd Preacher, Augusta, Ga., and office of Willis Irvin, Washington, Ga.

Plans and specifications may be secured at discretion of architect by general contractors desiring to submit proposal on entire work contemplated by depositing twenty-five (\$25) dollars with architect, which deposit will be returned when proposal, accompanied by certified check or bidder's bond for 2 per cent. of amount of bid, has been submitted and when plans and specifications have been returned in good condition.

Plans and specifications may be secured by subcontractors and additional sets by general contractors by depositing ten (\$10) dollars with architect, five (\$5) dollars of which will be returned when plans and specifications have been returned to architect, and the remaining five (\$5) dollars will be retained to cover cost of duplication of plans and specifications.

All bids must be accompanied by certified check for 2 per cent. of amount of bid, and the successful bidder will be required to furnish surety bond for half of contract price. The right is reserved to reject any or all bids submitted, delay award of contract until competency of bidders can be determined, or to accept any bid, irrespective of price, which seems to the Ordinary to be the most advantageous.

(Signed) SAMUEL L. WILKES,
Ordinary.

County Home Building

NOTICE TO CONTRACTORS.

Sealed proposals will be received by D. C. Sebastian, Chairman Board County Commissioners, Wilkesboro, N. C., until ten o'clock A. M. Tuesday, April 6, 1915, for the erection and completion of the County Home Building for Wilkes County, State of North Carolina.

Said proposals to include all labor and material as set forth in the specifications and shown on the drawings thereof, as prepared by Hook & Rodgers, Architects, Charlotte, N. C.

A certified check on some reputable bank in the sum of one thousand dollars must accompany each proposal as a guarantee that the maker thereof, if awarded the contract to build and complete said building, will duly execute good and sufficient bond payable to Wilkes County in the sum of ten thousand dollars, such bond conditioned upon compliance with terms thereof specified relative to building and completion of said building, and the same to be delivered within ten days from and after proposal is accepted; and in addition thereto, a bond against laborer's liens as is provided for in General Laws of North Carolina, Session 1913, Chapter 150; the Board of Commissioners of Wilkes County to be the sole judge of the sufficiency of aforesaid bonds; such check to be forfeited Wilkes County in event maker is awarded contract and fails to comply with guarantee and terms thereof above named. Check to be made payable to W. H. Foster, Clerk Board County Commissioners, Wilkesboro, N. C.

Plans and specifications will be on file in the office of the Clerk of the Board, Wilkesboro, N. C. (Courthouse), on and after March 6, 1915.

The building to be erected on County Home Farm, about two miles from R. R. Station of North Wilkesboro, such station being on Southern Railway.

The right to reject any and all bids or proposals is hereby reserved.

For additional information herein address either of the undersigned.

This March 3, 1915.
D. C. SEBASTIAN,
Wilkesboro, N. C.,
Chairman Bd. Co. Com.

H. C. CAVINESS,
Wilkesboro, N. C.,
County Attorney.

BRIDGES

To Bridge Contractors

Lake Charles, La.

Sealed bids will be received by the Police Jury, Calcasieu Parish, at the office of the Highway Department, Courthouse, Lake Charles, La., up to 10 o'clock A. M. April 6, 1915, for the construction of a steel highway swing bridge over Black Bayou on Highway No. 4.

Bids will be accepted on the following alternatives:

(1) The fabrication and delivery f. o. b. Lake Charles of steel work and turning machinery.

(2) The erection of the steel work and machinery and the construction of the substructure.

(3) The supply and erection of both superstructure and substructure, complete. Plans and specifications are on file at the office of the Highway Department, and copies of same may be obtained upon payment of five dollars (\$5), which will be refunded upon receipt of a bona-fide bid and the return of the plans and specifications.

Each bid must be accompanied by a certified check drawn on a bank doing business in Lake Charles, and made payable to the Treasurer, Calcasieu Parish, for 5 per cent. of the amount of the bid.

The Police Jury reserves the right to reject any or all bids.

E. C. HOUSE,
Clerk of the Police Jury.

Notice to Bridge Builders

Rogersville, Tenn.

Sealed bids will be received by the Bridge Committee until the 20th day of March, 1915, for the construction of a 10-ton steel bridge, 16-foot roadway, and approximately 1600 feet long, substructure to be of concrete masonry, across the Holston River at a point in Hawkins county, Tennessee, on the Virginia & Southwestern Railway. All bids must be accompanied by a certified check for \$250, payable to Albert Lyons, Chairman Bridge Committee, with right reserved to reject any and all bids. Plans and specifications can be seen at the office of the undersigned in Rogersville, Tennessee.

ALBERT LYONS,
A. L. BUREM,
R. R. MILLER,
Bridge Committee.

MISCELLANEOUS

Improvements to Light Plant

Blackville, S. C., Feb. 23, 1915.

Sealed bids will be received up to March 15 for improvements to the Electric Lighting Plant in Blackville, S. C. Specifications on request.

J. M. FARRELL, Chairman.

Water Pipe and Specials

Office of the Mayor,

Asheville, N. C., February 23, 1915.

Sealed proposals will be received at the office of the City Clerk until noon March 22, 1915, for furnishing f. o. b. cars at Asheville, N. C., 5820 feet, about 186 tons, of 10" cast-iron water pipe, class "A," 57.1 lbs. per foot; also, 5820 feet, about 186 tons, of 10" cast-iron water pipe, class "B," 63.8 lbs. per foot; and about 6200 lbs. of special castings.

Specifications can be obtained at the office of the City Engineer, Asheville, N. C.

The city reserves the right to reject any or all bids or parts of same.

F. L. CONDER,
City Clerk.

Proposal for Cotton Compress

Jacksonville Fla.

The Port Commissioners of Jacksonville, Florida, invite proposals for furnishing and erecting a Cotton Compress, with all attachments and appliances, complete, ready for use.

None except of standard construction is desired.

Proposals should state price erected above foundations, capacity, general description and where one can be seen in operation.

Full information, including plans and photographs, are desired, which information should be received in this office by March 15, 1915.

F. W. BRUCE,
Chief Engineer.

20,000 Barrels of Cement

Richmond, Va.

Sealed proposals will be received at this office until 12 o'clock noon March 15, 1915, for 20,000 barrels of cement to be delivered on the ground, when required, at any and all locations designated by the City Engineer, within the corporate limits.

Forms of proposals, specifications and information may be obtained upon application to this office.

A certified check for \$500, made payable to the City Treasurer, must accompany each bid as a guaranty of executing contract.

The Administrative Board reserves the right to reject any and all bids.

CHAS. E. BOLLING,
City Engineer.

10-Inch Deep Well

Caruthersville, Missouri.

Sealed bids addressed to the City Clerk, endorsed "Proposal for Well," will be received until 2 P. M. March 22, 1915, at which time they will be publicly opened and read. Certified check \$400 to the order of the City Clerk. The Board reserves the right to reject any or all bids or accept any bid.

Specifications may be obtained at the office of the City Clerk or from the Engineer.

J. M. MCGINNIS,
City Clerk.

FRANK L. WILCOX,
Consulting Engineer,
Syndicate Trust Building, St. Louis, Mo.

Electric Lights Wanted

Guntersville, Ala.

The town of Guntersville, Ala., contemplates putting in a system of electric lights within the next few months, and the Town Council of said town is now open for propositions from anyone who will put in the lights.

D. ISBELL,
Mayor.

Proposals for Steel Cages

Bids will be received by the Board of County Commissioners of Pinellas County, Florida, at Clearwater, Florida, for a Steel Cage for Convicts, capable of taking care of not less than 10 or more than 12 prisoners. Bids will be opened April 6, 1915. Address all communications to

C. W. WIECKING, Clerk,
Clearwater, Florida.

Notice to Builders, Steam Fitters, Plumbers and Electricians

Greenville, Miss.

Sealed proposals will be received by the City Council at the office of the Mayor until March 15, 1915, for furnishing materials and erecting high school building for the City of Greenville, Miss., including the building proper, heating, plumbing and wiring. For plans and specifications apply to R. H. Hunt, Architect, Chattanooga, Tenn. A deposit of \$25 will be required, which will be refunded upon the return of the plans. The City Council reserves the right to reject any and all bids.

LYNE STARLING,
City Clerk.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

C. G. Hume with Jamison & Hallowell
Announcement is made that C. G. Hume, who has been identified with the building material trade in South Alabama for some years, lately with the Montgomery Lime & Cement Co., has assumed the management of the building material business of Jamison & Hallowell of Montgomery, Ala.

Universal Shock Binder.

The patent of a device for binding corn shocks to prevent their blowing down and at the same time to keep the shocks dry inside, is offered for sale by Rentfrew & Co., brokers, 105-A E. Main St., Richmond, Va. Convenience and economy are among the claims of merit for this device, and many agricultural schools and individuals have given testimonials regarding its usefulness.

New Plumbing Supply House for Norfolk.

The Seaboard Supply Co., organized with John G. Fleck, president, of Philadelphia; George G. Lee, vice-president, and Virginius Tucker, secretary, of Norfolk, and E. A. Marshall, treasurer, of Baltimore, to do a wholesale plumbers' and steamfitters' supply business at Norfolk, Va., has purchased the property at 201-205 Water St., of that city. The company reports minor improvements to the property will be made as soon as possession is obtained.

Additional Equipment for English Mica Co.

At the Spruce (N. C.) mills of the English Mica Co., executive and sales office, Williamsport, Pa., which are devoted exclusively to the wet and dry grinding of mica used principally for decorating purposes and roofing, respectively, the present output per annum is about 30 cars of wet and 12 cars of dry ground mica. Installation is now being made of dry grinding equipment which will probably increase the output of this product to 50 carloads a year. The company writes the plant is practically completed, and it hopes to have the machinery in operation by April 1.

Otis Elevator Contracts.

William B. Crosby, 6 N. Calvert St., the Baltimore agent for the Otis Elevator Co., 11th Ave. and 26th St., New York, reports exceptionally good business for the past year, the amount of sales in Baltimore alone increasing from \$114,000 in 1913 to \$230,000 in 1914. Recent contracts executed through the Baltimore office include eleven electric traction elevators for the 12-story Coca-Cola Bldg., Baltimore; four electric traction elevators for the 12-story Coca-Cola Bldg., Kansas City, Mo.; two drum-type elevators for the 8-story Coca-Cola Bldg., Winnipeg, Canada; two electric drum-type 10,000-pound-capacity elevators for the 4-story building of the Crown Cork & Seal Co., Baltimore; two 4000-pound-capacity elevators for the Garden Theater, Baltimore, and many others.

Mercury Bulley Tractor.

The Mercury Manufacturing Co., 4110 South Halsted St., Chicago, has issued an illustrated pamphlet containing description

of the construction and other information regarding its Bulley tractor, which is said to have a draw-bar pull, when in low gear, of about 2500 pounds. The tractor is unique in design, in that the standard four-cylinder gasoline engine is placed over the rear driving wheels behind the driver's seat and uses a single front wheel, which gives a short turning radius. It is designed for pulling purposes only, no carrying space being provided. An illustration in the pamphlet shows a Bulley tractor hauling a train of 12 trailers, loaded, weighing one ton each.

Carborundum Exhibit at Panama-Pacific Exposition.

Visitors to the Machinery Building of the Exposition at San Francisco will find an instructive and interesting exhibit by The Carborundum Company of Niagara Falls, N. Y., manufacturer of abrasive materials, showing the varied manufacturing processes from the article in the crude to the finished state, together with the Carborundum products with which the work is done. Four hundred or more exhibits, occupying 1400 square feet of floor space, have been gathered from all parts of the country, and show material ranging from steel shafts to watch dials, from tooth picks to sections of flooring, from flour-mill rolls to needles, cut and engraved glass, sanded skins, polished and moulded marble onyx, semi-precious stones and pearl work, in the grinding, shaping or finishing of which Carborundum products have been used. While the main portion of the setting for the exhibit consists of a classic colonnade and wings, a striking feature is the tiled base and marble-curbed fountain built up of irregular masses of vari-colored iridescent Carborundum crystals piled to a height of about 10 feet, over which the playing water produces wonderful color effects. The floor of the exhibit is laid with tiling or finished plaquettes of Carborundum and Aloxite. Glass showcases, having mahogany-finished bases, protect the exhibits, which are shown through the courtesy of the customers of The Carborundum Company. Each case is identified by an ornamental card giving the donor's name and a short description of the article, of the work done on it with Carborundum products, and in some instances photographs showing the actual working conditions are attached.

TRADE LITERATURE

Safeguarding Employees.

The Youngstown Sheet & Tube Co. is circulating a pamphlet entitled "Safety First," by James M. Woltz, safety director, giving a general review of the safety and welfare work as carried out at its Youngstown (O.) plant.

Fabroil Gears.

A collection of illustrations showing the great variety of applications for which Fabroil noiseless gears, formerly known as cloth pinions, are said to be particularly well suited, are presented in a catalogue issued by the General Electric Co. of Schenectady, N. Y. These illustrations include

Thinking of Buying Steel Equipment?



—Lockers, Shelving or Bins, etc.?

We make these and most every other kind of steel equipment—have for 12 years past.

In selecting the kind you believe will give you the best service, wouldn't you feel better satisfied to get a type that has already proved a sound business investment for others?

Then read the names of a few of the big concerns who use Merritt Steel Equipment.

1. The Western Electric Co.
2. The U. G. I. and associated companies.
3. John Wanamaker.
4. National Biscuit Company.

In getting printed matter, wouldn't you prefer (instead of general catalogs) something devoted especially to the same kind of service you are interested in?

We have special bulletins for almost every line of business, describing how and why Merritt design and construction have led to the success of Merritt Installations for each kind of service.

MERRITT Free Advisory Service Steel Equipment

Tell us your line of business—the kind of equipment you are interested in, and use the Merritt Free Advisory service (no cost or obligation) in deciding the best equipment for your needs.

There's no coupon for you to sign. Just use this ad as a memorandum, and dictate a note today.

Merritt & Company

Kern Dodge, Receiver

51 Front Street, Camden, N. J.

Manufacturers of Steel Factory and Office Equipment Since 1849



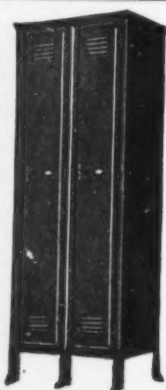
Clothes Lockers Tool Lockers Lockers for all purposes

Indestructible Sanitary Fireproof

Your Workmen will appreciate having their belongings under lock and key. The advantage is mutual.

BERNSTEIN MFG. CO.

3rd St. and Allegheny Ave., Philadelphia



dough-handling, washing and textile machinery, compressors, pumps, lathes, milling machines, boring machines, punches, gas engines, etc. Fabril gears are claimed to be remarkable for strength, elasticity of teeth and toughness, being proof against damage from water, oil, dryness or temperature changes.

The Ripley Sand Dryer.

A sand dryer or stove for drying sharp sand is illustrated and described in a circular issued by the Ripley Foundry & Machine Co. of Ripley, O. The drier is simple in design, substantially constructed, and has a capacity of from 5 to 7 tons per day. Hard or soft coal, coke or wood may be used as fuel.

Map-Directory of Guyan Valley (W. Va.) Mines.

Directory and map of the coal mines in the Guyan Valley of West Virginia, in folded pocket size, has been published by Wightman D. Roberts, Huntington, W. Va., which shows the location of each of the 63 mines in that field, together with the names of the companies, managers and buyers, number of em-

ployes, table of distances, railroad timetable, etc. The price of this directory and map is \$1.

Sand-Asphalt Roads.

Favorable impressions of prominent Floridians regarding a "Texaco" sand-asphalt road recently constructed at Tarpon Springs, Fla., are set forth in a folder entitled "The Verdict," issued by the Florida office of John Baker, Jr., asphalt and bituminous products, 17 Battery Pl., New York. Thomas H. Reed is the manager of the Florida office, which is located at 604 Franklin St., Tampa. This comparatively new type of pavement is said to be giving satisfaction in Florida.

Steel Plate Construction.

Bulletin No. 7, issued by the Coatesville Boiler Works of Coatesville, Pa., and 30 Church St., New York, is devoted exclusively to steel-plate construction and contains many illustrations which are intended to convey in a general way an impression of the scope and character of plate work handled by the company. Illustrations of the fabricated plate work shown comprise steel stacks, tanks of all kinds, blast fur-

naces, etc. This bulletin and another similar one, which is devoted exclusively to steam boilers as built by the Coatesville Boiler Works, will be sent to interested persons upon request to the company.

Cloth Marking Device.

The Fulton cut marker for identifying cloth patterns is illustrated and described in a folder issued by the Saco-Lowell Shops of Boston, Mass., manufacturers of textile machinery. In mills where a number of patterns of cloth are made there is often so much similarity between them that mistakes occur by using the wrong warp. With this device attached to yarn slasher it is claimed such mistakes can be eliminated, as the pattern number or style mark is printed on the warp threads themselves and can be repeated at intervals as frequently as desired to conform to the standard lengths of cuts, thus marking the rolls for identification through succeeding processes.

South-Mere (Fla.) Farms.

A handsome brochure describing the beautiful scenery, ideal climate, fertility of the

soil and other advantages to be found in the famous Indian River district of Florida, has been issued by the South-Mere Farms & Fruit Co. of Titusville. Many illustrations are shown of beautiful orange and grapefruit groves, palm-bordered driveways, and developed and undeveloped citrus-fruit growing and truck farming lands comprising the 30,000-acre South-Mere Farms tract, situated in Brevard county, lying between the St. John's and Indian rivers, verging on the shores of both. Transportation facilities are offered by the Florida East Coast Railway that passes through the Northeastern section of the estate with a station at Mims, at which place are two modern citrus-fruit packing-houses operated day and night during the packing season. Information on citrus-fruit culture, vegetable growing, general farming, poultry, etc., as carried on in the South-Mere Farms section, is given in the book. A pamphlet on "What They Say About Florida and What We Say About the Indian River Section" is also issued by the South-Mere Farms & Fruit Co. of Titusville, Fla., and 12th and Chestnut Sts., Philadelphia, Pa.

Special Advertisements of General Interest.

Your chance to open up a new market for your goods in SOUTH AMERICA

If interested, write at once to

FRIEDR. W. LUTZ

RICHMOND, VA.

Personal Representatives in Brazil and the Argentine Republic.

MANGANESE

N&W
RY. W.

Along the Norfolk & Western Railway in the Piedmont Counties of Virginia and North Carolina, and in the foothills of the Blue Ridge Mountains are large undeveloped deposits of high-grade manganese ore. In the past Virginia has produced more manganese than all other States combined. At present a number of properties have been purchased and are being operated, yielding a profitable return on capital invested. If interested, write for further particulars.

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RY. W.

CEMENT PLANT WANTED.—In one of the Shenandoah Valley counties of Virginia, served by two transportation lines, is a large deposit of high-grade limestone shale and clay, suitable for the manufacture of portland cement. An undeveloped water-power, which can be made to produce at least five thousand horse-power, within one mile from proposed cement mill site.

Further information regarding these and other propositions by writing
F. H. LA BAUME, Agr'l and Ind'l Agent, Norfolk & Western Ry. Co., Roanoke, Virginia.
REFERRING TO FILE M-6004.

FOR SALE AT A BARGAIN TO QUICK BUYER

An up-to-date band-saw mill with drykils, planer, etc., in daily operation; logging railroad with team and sufficient equipment for logging the mill, together with fifty to sixty million feet of standing timber (N. C. Pine); 600 acres of land in fee, which will make splendid farming land. Water shipping at low rates by barges. Address

N. C. PINE

Care Manufacturers Record, Balto., Md.

POWER PLANT FOR SALE OR LEASE

One of the best located and equipped operating Brick Plants in the Southwest. Manufacturers of vitrified face and paving brick. Matt face a specialty. Located at Ft. Smith, Ark. Trade covers part of four States. Terms can be made to suit a responsible purchaser. Capacity, 75,000 brick per day. Address **BURKE BRICK COMPANY, Ft. Smith, Ark.**

Arkansas Colonization Tract

2000 acres; 300 acres improved, balance timbered; 2 to 4 miles from station; \$8 per acre.

Address Box 158, Bearden, Ark.

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Has the most complete natural-gas system in the entire Southwest. Splendid water system. Glass sand assaying 99.53% silica. The best limestone in the State. Fire and brick shales. Large and splendid agricultural trade territory. Oil and gas field developing. Large distributing territory. We invite capital to fully investigate our opportunities.

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1887

1915

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Washington, Indiana

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COMPLETE BAND SAW MILL and Planing Mill at Riverside, Ala. Buildings, power plant, all machinery ready to start up. Expect to sell at small percentage of original cost. It is in the timber district. Good opportunity for manufacturing and shipping. Low freight rates. River navigation for steamboats. Plenty additional timber. Southern Railway. Two thousand acres of timber with the plant. Good place for river and railroad logging. Owners wish to retire. Apply

LATHROP HATTEN LUMBER CO., Birmingham, Ala.

WOOD REDUCTION TURPENTINE and ROSIN PLANT Located in Lake Charles, La. Shipping facilities excellent; raw material cheap and practically inexhaustible; capacity, forty tons of wood per day; latest machinery and contrivances; almost new. Will sell cheap and take one-half price in stock with operating company. For further particulars address

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In New England territory would like to represent reliable concern in iron or machinery line, straight commission basis. Prompt attention to all inquiries. Have storage facilities—salesmen on road—equipped with business autos. Write for information. Address

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FOR SALE

The Property known as the Bullard Car Door Equipment plant, centrally located on Southern Railway tracks in Birmingham, Ala. Will sell at great bargain.

If interested, write to

THE JEFFERSON COUNTY SAVINGS BANK
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Steam Engineer Electrical Engineer and Pipe Fitter Desires Good Position

Habits unimpeachable. Punctual and attentive to Duty. Reputable Stencilor. Business and Literary Education.

Write to

R. N. SMITH

Hephzibah,

Georgia

ADAM A. WESCHLER AUCTIONEER

Auction Sale of Plant, Machinery and Other Property of THE EMERSON STEAM PUMP COMPANY

Pursuant to the terms of a decree rendered by the Corporation Court of the City of Alexandria, Virginia, on November 30, 1914, in the consolidated chancery causes of Jacob N. Belt, Adm., etc., vs. The Emerson Steam Pump Company, et als., and Orren G. Staples, who sues, etc., vs. The Emerson Steam Pump Company, et als., the undersigned, appointed by said decree Special Commissioners for the purpose, will offer for sale at public auction, at the plant of The Emerson Steam Pump Company, in the County of Fairfax, Virginia, near the corporate limits of the City of Alexandria, Virginia, at 12 o'clock Noon, on Monday, March 15, 1915, the plant and all the property of The Emerson Steam Pump Company, including patent rights, splendid factory and other buildings of the Company, erected on a tract of land containing 3-88/1000 acres, all the machinery and attachments in said plant, tools, office furniture, completed and uncompleted pumps and parts, etc.

The factory building on this property is 215 feet long and about 63 feet wide, and contains besides the pump factory a fully equipped pattern shop. The building is of steel, brick and cement construction, cement flooring, six inches deep, covered by double oak flooring. Carey roof. It is only about 200 yards by road from the freight station of the Washington-Southern Railway Company.

The plant is now in operation.

The above property will be offered for sale separately and as a whole, and will be knocked down to the highest bidder.

TERMS OF SALE: CASH. Conveyancing at the cost of the purchaser or purchasers. A reasonable deposit will be required on the day of sale on each purchase, and payment in full will be required within thirty days from the date of sale.

EDMUND BURKE,
GARDNER L. BOOTHE,
Special Commissioners of Sale.

Bargains in Machinery and Supplies.

Machinery Bargains

14-ton 9"x14" Porter Locomotive, 36" gauge.
4-yd. K. & J. Dump Cars, 36" gauge.
3-yd. All-Steel Dump Cars, 20" gauge.
200 tons 60 and 70-lb. Relaying Rails.
120 tons 12 and 16-lb. Relaying Rails.
175 tons 12" 35 and 40-lb. Sheet Piling.
50 24" 80 and 100-lb. I Beams, 30 to 39.
300 15" 42 and 60-lb. I Beams, 15 to 18.
200 12" 40-lb. I Beams, 15 to 18.
40 100x15 All-Steel Frame Buildings complete, ready to erect.

Write for Free Complete List No. XB-213.

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35th and Iron Sts. CHICAGO, ILL.

Second-Hand Boilers

All good for 100 lbs. pressure—ready for immediate delivery—offered complete with usual castings and fittings.

HORIZONTAL TUBULAR

3 72"x18" "Penna. Boiler Works."
1 100 H. P. "Erie City Iron Works," economic type.
1 60"x16" "Sotter Bros.," sue type.

VERTICAL

1 48"x11". 1 36"x8". 1 36"x6".
1 42"x7". 1 36"x7". 1 30"x5".

We have also in stock at especially low prices, new vertical boilers from 1½ to 35 H. P. We are having printed at the present time a complete list of steam and electric power equipment, metal and wood working machinery. May we send you one?

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437 North Third St. Philadelphia

FOR SALE Cheap Before Removal

Train, two 21" Roughing Mills.
Train, four 12" Guide Mills.
Train, three 10" Guide Mills.
690 H. P. Buckeye Twin Steam Engine.
650 Wetherill Corliss Rolling Mill Engine.
Two-ton Sprague Electric Hoists, D. C.
400 H. P. Motor A. C. Switchboard.
50 H. P. A. C. Motors.
No. 5½ Root Blowers, with valves.
4' and 6' Air Hoists.
Covington Vertical Shear, cap. 4' sq. cold.
Jib Cranes, Scales, etc.
We purchase the entire equipment of industrial plants.
What have you for sale?

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Crozer Building, Philadelphia, Pa.

FOR SALE—New Lathes at Bargain Prices

Geared head 20"x10", 18"x10", 18"x8", 16"x8", 16"x6". Cone head 20"x10", 15"x8", 15"x6". All the above with semi-quick-change gears. Second-hand lathes with geared heads, quick-change gears, 16"x8", 16"x6", 15"x8". Second-hand lathes, cone head, plain gears, 29"x18", 27"x16", 20"x10", 18"x8", 13"x6", 13"x5".

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STEAM ENGINE AND MOTOR DRIVEN PUMP

25 H. P. 9x12 Nagle Center-Crank Plain Slide-Valve Engine in excellent condition at low price.
Motor-Driven Centrifugal Pump, 250 gals. per min. against a 225-ft. head, practically new, at half price. Will equip with any style motor desired.
Electrical apparatus of all kinds at lowest prices.

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BOILERS, STATIONARY: HIGH PRESSURE: 1 200 H. P. for 125 lbs.; 2 150 H. P. for 150 lbs.; 3 150 H. P. for 125 lbs.; 2 100 H. P. for 125 lbs.; 2 80 H. P. for 125 lbs.; Standard from 150 H. P. to 30 H. P. for 100 lbs.

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BOILERS, VERTICAL: 100 to 4 H. P. plain and submerged tubular.

GENERATORS AND MOTORS: All sizes and kinds, belted and direct connected.

MISCELLANEOUS: Heaters, open and closed; pumps, all sizes; sawmills; corn mills and feed grinders; exhaust fans and blowers; woodworking machinery; ironworking tools; leather, rubber and canvas stitched belt; pipe, valves and engine and boiler fittings.

Sole manufacturers of the Leader Injector and Ejector. Ask for circular.

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1734 Powers St., Cincinnati, O.

SAWMILL MACHINERY

1 Lidgerwood Steel Frame 4-Line Combination Pine Skidder and Loader. \$6500.00
1 10"x10" Lidgerwood Overhead Skidder 3250.00
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Sawmills, Edgers, Log Hauls, Live Rolls, Conveyor Systems, Filing-Room Equipment, Saws, etc.
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Pulleys, Shafting, Hangers, Boxes, etc.
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We CAN SAVE YOU HALF ON LARGE and SMALL ITEMS OF USED EQUIPMENT.

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Heavy, well-made iron-bound casks, 42" diameter middle, 38" diameter ends, 42" high, 1½" thick, in sound condition, with both heads in. Sold singly or in car lots.

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By Lorick & Lowrance, Inc., one 75-horsepower Horizontal Return Tubular Boiler, 60 inches by 15 feet, half-arched front, fire box, grate bars and fixtures. Manufactured by Nagle Boiler & Engine Works. Price \$400, f. o. b. Columbia, S. C.

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3 Lidgerwood Hoisting Engines, cylinders 8½x10, D. D., D. C., first-class condition.

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BOILERS

2 125 H. P. B. & W., 150 lbs. pressure.
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2 250 H. P. Sterling, 150 lbs. pressure.
4 250 H. P. Heine, 160 lbs. pressure.
2 300 H. P. Edgemore, 175 lbs. pressure.
350 H. P. Heine, 150 lbs. pressure.
6 550 H. P. B. & W.-A. & T., 150 lbs. pressure.

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419 Pine St.—OTHER SIZES—St. Louis.

SAFES

Three very fine burglar-proof safes, suitable for bank, factory or large mercantile house. Rare bargain. A full line of new and used safes.

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Two 16-foot Capel Fans, almost new; one 16-foot Robinson Fan, and one 14-foot Robinson Fan, all the above with direct driven engines. Bargains. Address

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Two 75 H. P. Three-Cylinder Belted Type; seen running. Bargain.

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Culvert Machinery for small, yet up-to-date plant. Machinery must be in first-class condition. Reply

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Direct Current Generating Sets, 250 and 550 volts.
Boilers, 150 H. P., Return Tubular.
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Steam Pumps, Piston and Plunger, best makes.
Mining Equipment. Full list furnished on request.

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Used Machine Tools

which we offer at attractive prices

- 18"x6" Reed.
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- 20"x12" Lodge & Shipley, Q. C. G.
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SPECIAL LATHES

- No. 3 Lodge & Shipley Rapid Reduction Lathe.
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- 15"x8" Lodge & Shipley Single Pulley Driven Lathes.

METAL SAWS

- Globe Power Hack Saw, 8" capacity.

MISCELLANEOUS MACHINES

- One Marlon Double Grinder.
- One Marlon Double Grinder on stand.
- One Diamond Combination Grinding and Polishing Stand on column.
- One Sturtevant Blower, diameter of outlet 24".
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- Universal Swivel Table for Radial Drill.
- Brown & Sharp Grindstone Frame for 5"x36" stone.
- One Mueller Grindstone Frame for 4"x27" stone.
- One 12"x40" Mumford Molding Machine.

Write for complete description with prices of machines in which you are interested.

The Lodge & Shipley Machine Tool Co.

CINCINNATI, OHIO

FOR SALE

1-75 K. W. Bullock 60-cycle, 3-phase, 220-volt Alternator, direct connected to 12x15 Skinner Automatic Engine. Practically good as new.

1-16x22 Atlas Left-Hand HEAVY-DUTY 4-Valve Engine. Wheel 9 feet in diameter by 22 1/2-inch face.

3-100 H. P. each 66"x18" BUTT STRAPPED, TRIPLE RIVETED Horizontal Tubular Boilers Complete.

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Special Bargains in Sanders

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Woodworking machinery of all kinds. Write, stating your requirements.

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memo.

Send to Prentiss Tool & Supply Co., New York, for their latest complete list of used machinery.

FOR SALE

As good as new; 35 H. P. Sawmill with Trimmer, Edger, Rollers and Dust Drag. For full information, address

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- 13x36 H. D. Quincy Corliss.
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- 32 & 32x60 Allis Hor. Tand. C.
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FOR SALE

We offer the following equipment for immediate delivery f. o. b. Charlottesville, Va.: Price.

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- 3 150 K. W. General Electric 550-volt D. C. Type C. L. B. 525 R. P. M. Generators with panels, each.....600.00
- 2 150 K. W. General Electric Form P 2300-volt 3-phase 60-cycle Alternators, each, with panels.....800.00
- 500-volt D. C. Motors with Pulleys, Bases and Starting Boxes.

- 1 40 H. P. 950 R. P. M. Westinghouse, shunt wound.....\$300.00
- 1 30 H. P. 675 R. P. M. Westinghouse, Type S.....200.00
- 1 25 H. P. 875 R. P. M. General Electric, D. L. C. Type.....200.00
- 1 20 H. P. 925 R. P. M. General Electric, D. L. C. Type.....175.00
- 1 20 H. P. 1040 R. P. M. Westinghouse, Type S.....150.00
- 1 15 H. P. 925 R. P. M. G. E.....125.00
- 2 10 H. P. 1400 R. P. M. G. E., each.....100.00
- 1 10 H. P. 950 R. P. M. Westinghouse.....100.00
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- 220-volt Direct-Current Motors, starting boxes and pulley.....45.00
- 1 7 1/2 H. P. 1400 R. P. M. Kester.....45.00
- 1 3 H. P. 1500 R. P. M. General Electric.....35.00

We also have a number of smaller 220-volt D. C. motors, vacuum cleaners, meters, fans, ceiling and desk, massaging machines, etc. Write us.

CHARLOTTESVILLE & ALBEMARLE RAILWAY COMPANY
CHARLOTTESVILLE, VA.

REFRIGERATING MACHINE

3-Ton Racine Vertical, two cylinder, belted type Refrigerating Machine, complete with condenser, ammonia receiver, oil trap, gauges, cooling-room coils and hold-over tank; little used. Bargain for quick sale; less than one-half new cost.

The Assets Purchasing Company
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We have accumulated a stock of wire rope that we offer at bargain prices. The lengths run from 60 to 3000 feet, from 1/4 to 1 1/2 inches diameter. These are new ropes and perfectly good for a variety of purposes, but are of construction different from our regular stock ropes. It will pay you to get a list of these with our prices.

Broderick & Bascom Rope Co.

805 N. Main St. ST. LOUIS, MO.

WE HAVE
16 Water-Tube Boilers
200-400 H. P.
FOR SALE CHEAP
EDGAR M. MOORE & COMPANY
PITTSBURGH

Tampa Machinery Exchange
TAMPA, FLA.

Buy, Sell and Exchange Machinery of All Kinds

WRITE US YOUR WANTS

Motors, Dynamos, Switchboards, Etc.

- 400 H. P. G. E. Induction Motor, 720 R. P. M., 2200 volts, complete.....\$3000.00
- 75 H. P. Westinghouse, slip ring.....425.00
- 75 H. P. G. E., slip ring, new, 850 R. P. M., complete.....600.00
- 50 H. P. Allis-Chalmers, 3-phase, new, 850 R. P. M., complete.....300.00
- 50 H. P. G. E., 2-phase, 850 R. P. M., complete.....245.00
- 35 H. P. G. E., 3-phase, 850 R. P. M., complete.....215.00
- 35 H. P. Westinghouse, 2-phase, 1140 R. P. M., complete.....200.00
- 25 K. W. C. & C. to Watertown engine, 115 volts.....400.00
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Large stock of smaller motors and dynamos, both A. C. and D. C. Let us have your requirements.

R. Scheinert & Co., 125 N. Third St., Philadelphia

BOILERS

- 3 150 H. P. High-Pressure Boilers.
- 1 125 H. P. High-Pressure Boiler.
- 1 100 H. P. High-Pressure Boiler.
- 1 125 H. P. Skid Boiler.
- 5 100 H. P. Standard Boilers.
- 2 80 H. P. Standard Boilers.
- 2 50 H. P. Standard Boilers.
- 2 45 H. P. Standard Boilers.
- 4 40 H. P. Vertical Boilers.
- 1 35 H. P. Vertical Boiler.
- 2 25 H. P. Vertical Boilers.
- 3 20 H. P. Vertical Boilers.
- 1 42"x72" No. 8 Steel Smokestack, good as new.

Also Pumps, Pipe, Fittings, Gas Engines and Hoists

Bailey & James Boiler & Machy. Co.
512-516 Grand Ave. JOPLIN, MO

SPECIALS

- 16x36 Watts-Campbell Corliss Engine, in perfect condition, \$500.
- Three 72"x18" H. E. T. Boiler, 2 years' service, 150 pounds pressure, \$400.
- 500 H. P. Heine Water-Tube Boiler, 6 years' service, 150 pounds pressure, \$1675.

DUZETS & SONS

Hudson Terminal Bldg. NEW YORK

ENGINES Plain, Automatic, Corliss, Gasoline or Oil

BOILERS VERTICAL or HORIZONTAL

A1 CONDITION PRICES RIGHT
On What Shall We Quote You?

DECATUR NOVELTY WORKS, Decatur, Ill.

BOILERS FOR SALE

I have a big bargain in two 125 H. P. Butt-Strapped Triple-Riveted Boilers. One Corliss Engine, 10x24. 10x12 Belt-Driven Air Compressor.

R. W. TRAYLOR

348 Ogden Avenue Jersey City, N. J.

FOR SALE

Two Austin No. 2 Deep Well Drilling Machines in good shape, fully equipped with tools and gasoline engines mounted on frame, together with well-established business. Also have Hupp automobile for sale with them. Address

JOHN G. CHASON, Colquitt, Ga.

ARC LAMPS FOR SALE

450 Arc Lamps, Form 7, G. E., Enclosed, Series, 7 1/2 Ampere, in use at the present time. Change to be made due to substitution of Gas Filled Lamps.

THE FLATBUSH GAS COMPANY

273 Clarkson Street, Brooklyn, N. Y.

BORING MILL

- 84" Sellers, overhauled by Sellers Co., complete with 2 heads, \$650.
- 4 2 1/4x6 Deane Triplex Pumps, designed for 750 lbs. pressure, \$60 each.

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BEFORE buying new equipment consult our stock list of rebuilt machines. Copy mailed upon application. We have never had a larger assortment of power equipment machinery on hand. Every piece is rebuilt and guaranteed. Each week of the new year has shown an increased demand for machinery. Now is your opportunity to buy good used machines right. Representing some of the leading manufacturers of Power and Electrical Equipment, Machine Tools and Woodworking Machinery, we carry stocks in our warehouses ready for immediate shipment.

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- 60"x60"x14" Sellers Planer, 4 heads.
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- 48"x48"x15" Sellers Planer, 2 heads.
- 72" Bickford Vertical Boring Mill, 2 heads.
- 60" Sellers Vertical Boring Mill, 2 heads.
- 48" Sellers Vertical Boring Mill, 2 heads.
- 36" Bickford Radial Drill.
- 3500 lbs. Bement-Miles Double-Frame Steam Hammer.
- 350 lbs. Bement-Miles Single-Frame Steam Hammer.
- 6" Oster Pipe Machine
- No. 3 Kempsmith Plain Milling Machine with universal dividing heads.
- 36"x12" Hess Heavy-Duty Slab Milling Machine.
- 12" Niles Slotter.
- 38"x20" Fidelity Lathe, triple geared.
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- 6" Cox Pipe Machine.
- 16"x6" Hendey Lathe, taper attachment.
- 14"x8" Hendey Lathe.
- 10" Bignall & Keeler Pipe Machine.
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- 14"x5" Lodge & Shipley Lathe, pan bed, taper attachment.
- 30 new Lathes 14 to 30" in stock; immediate delivery.

POWER EQUIPMENT

- 2 350 H. P. Sterling Water Tube, 150 lbs. steam working pressure.
- 3 250 H. P. Franklin Water Tube, 150 lbs. steam working pressure.
- 1 150 H. P. Babcock & Wilcox Water Tube, 150 lbs. steam working pressure.
- 6 150 H. P. 72"x18" Horizontal Tubular, 125 lbs. steam working pressure.

CORLISS ENGINES

- 24"x42" Allis, left hand.
- 18"x42" Watts-Campbell, right hand.
- 16"x36" Allis, left hand.

FRANK TOOMEY, Incorporated

127-131 North Third Street

PHILADELPHIA, PA.

- 2 14"x36" Scottdale, right and left hand.
- 14"x36" Lane & Rodley, left hand.
- 12"x36" Allis, left hand.

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- 2 500-gal. 14"x7 1/4"x12" Underwriter's Fire Pumps.

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- 1 18" x 20 1/4" - 13 1/4" x 24" Ingersoll-Sargeant Class A Straight Line, two-stage. Capacity 940 cu. ft.
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- 1 12" x 12" x 16" Ingersoll-Sargeant Class C Straight Line. Capacity 275 cu. ft.
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DIRECT CONNECTED UNITS.

- 150 K. W. 250-volt D. C. Crocker-Wheeler, with Wright Horizontal Tandem Compound 14 1/2" x 24" x 16" Engine.
- 105 K. W. 220-volt 3-phase 60-cycle A. C. Westinghouse Alternator, with 15"x18" Buckeye Horizontal Automatic Engine.
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Motors, direct and alternating current, all sizes from 1 to 100 H. P., in stock for immediate delivery.
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Generators, large stock from 1 K. W. to 75 K. W., 110 and 220-volt, direct and alternating current.
SPECIAL: 2 500 K. W. 550-volt 3-phase 60-cycle General Electric Alternators, 360 R. P. M.

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A. S. C. E. Sections
PROMPT DELIVERY.
8, 12, 16, 20, 25, 30, 35, 40 pounds per yard.
With Splices and Spikes.
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Manufacturers, Cumberland, Md.
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assuring absolutely first quality, furnished
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Locomotives

Four wheel type

40 tons; 17"x24"; 160 lbs. pressure

Overhauled
Modern

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Several Locomotives and Cars.

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Heavier Sections Made to Order
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Released by Pennsylvania R. R.

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Relaying Steel Rails

35-lb., 40-lb., 56-lb., 60-lb., 70-lb., 80-lb.,
85-lb. and Angle Bars to lay same

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56 to 80-lb. sections, located in different parts of the country, and all equipped with angle bars to fit. Ready for prompt shipment. New or relaying light rails at low prices. New frogs, switches, bolts, spikes, etc.

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A Buffalo Steam Ten-Ton Tractor and Twelve Five-Ton Wagons for use with it. Used about three months.

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1 Contractor's outfit; Wagons, Slip Scrapers, Dump Cars, 36" gauge.
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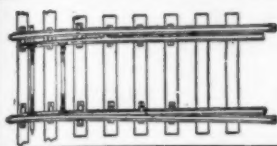
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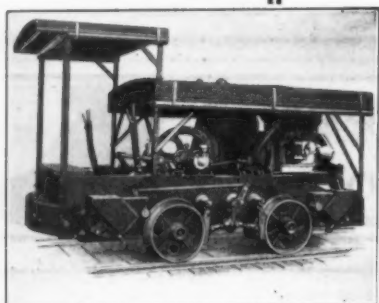
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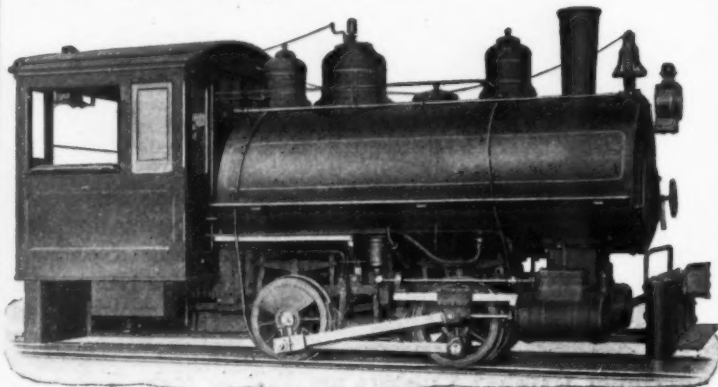


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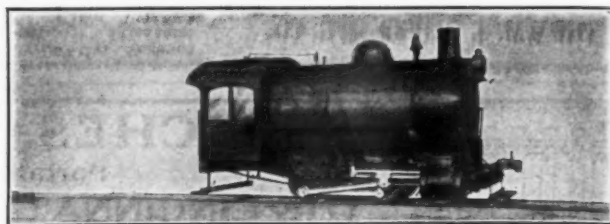
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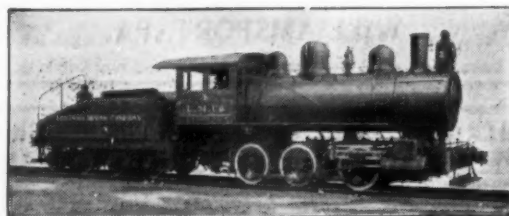
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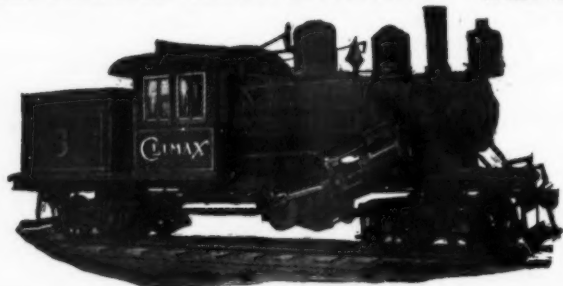


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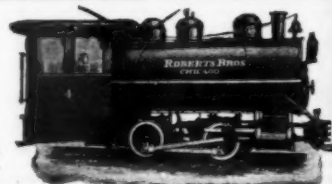


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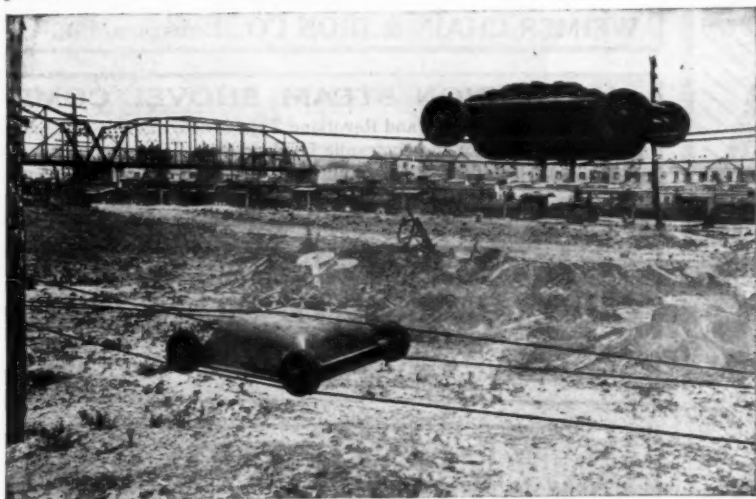
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T-10

HERE IS THE POINT

The advent of the simplified type known as the LAWSON TRAMWAY puts the whole subject of Short-Haul Transportation on a new basis. The Aerial Tramway has hitherto been strictly an emergency apparatus, to be resorted to when all other reasonable means of transportation fail. The standard or narrow-gauge road, traction engines, motor trucks, etc., were first figured on as the preferred plan. But if on account of severe grades, sharp curves, deep canons, river crossings, etc., none of these were feasible, then, as a last resort, the Aerial Tramway was called in—and performed its service well, as a rule. Nevertheless, its high initial cost, its endless and heavy upkeep, and its lack of general flexibility to adapt itself to the best route have always stood in the way of its broader application.



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The various engineering problems presented are of the most stimulating character. In application no two tramways are alike. Our clients may be assured that Lawson Tramways are not "built by the mile and sawed off to order," but each case receives the closest engineering study, with the interest of our client always paramount to every other consideration.

Very respectfully,

AMBURSEN COMPANY, (Tramway Department)
61 Broadway, New York

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In building roads, cutting pipe trenches or light quarry work, rock can be removed most quickly, cheaply and easily with a

Sullivan Portable Drilling Rig

These handy outfits consist of a Sullivan Air Compressor, direct-driven by a gasoline engine, both mounted on a steel frame wagon truck, forming an independent air power supply. These rigs are practically automatic, and are strongly built for rough use.

A Sullivan "WK3" Compressor and a Sullivan Hammer Drill or two will cut your costs in rock removal.

Send for Bulletin 1258-0.

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The ground covered by an average stump and its roots will grow 25c. to 50c. worth of food crops per year. A hundred-stump acre will produce \$50 worth of food per year after clearing. Why leave these dollars buried under stumps and pay taxes on stump land when the whole world offers big prices for American farm products?

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will get them out in cold and wet weather, when you have plenty of time. Clear land early and crop it this year. This explosive is low freezing, hence works well while snow is on the ground. It takes less Stumping Powder in wet weather than in dry. Turn the cold wet days of March and April into cash.

Order Red Cross quickly from any hardware dealer or
DU PONT POWDER CO.
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1915

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Keystone Explosives

QUALITY—EFFICIENCY

Nitro-Glycerine Dynamite
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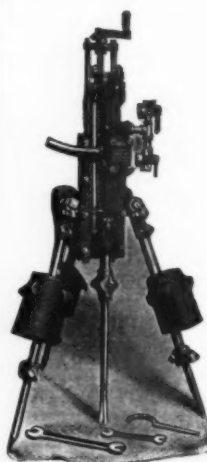
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The success of every blasting operation depends on the Quality and Efficiency of your explosive.

WE SPECIALIZE ON EXPLOSIVES

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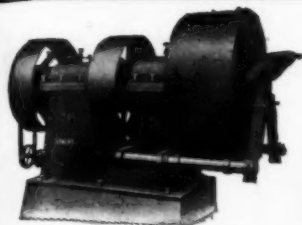
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STANDARD PORTABLE SAW MILLS CO. NEW ORLEANS, LA.

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Read the list in the Construction Department of this issue of new companies being started in the South. Can't you supply them something?

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Patented

EVENTUALLY SYMONS DISC CRUSHERS

Will be installed in every plant where rock-crushing is a problem.

Made in four sizes.

Capacities, 5 to 120 tons per hour.

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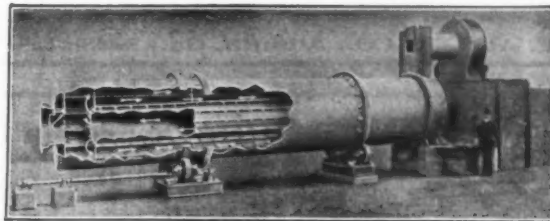
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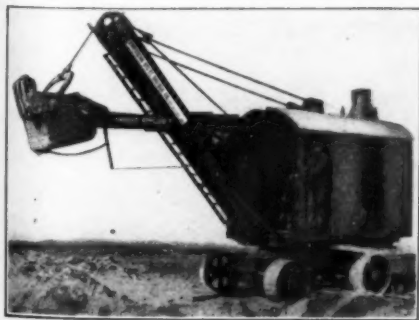


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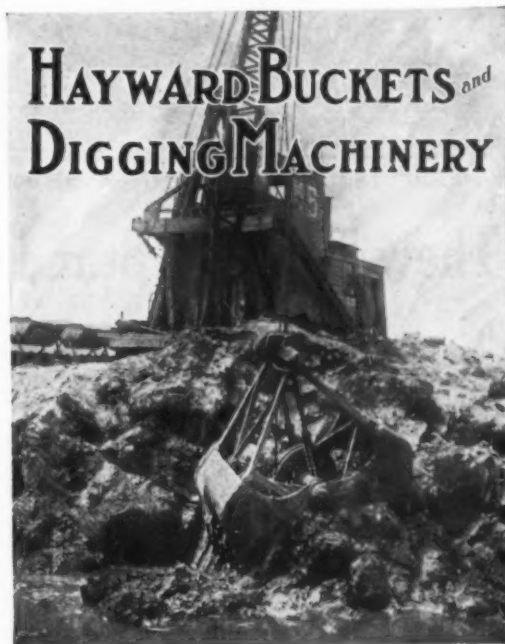
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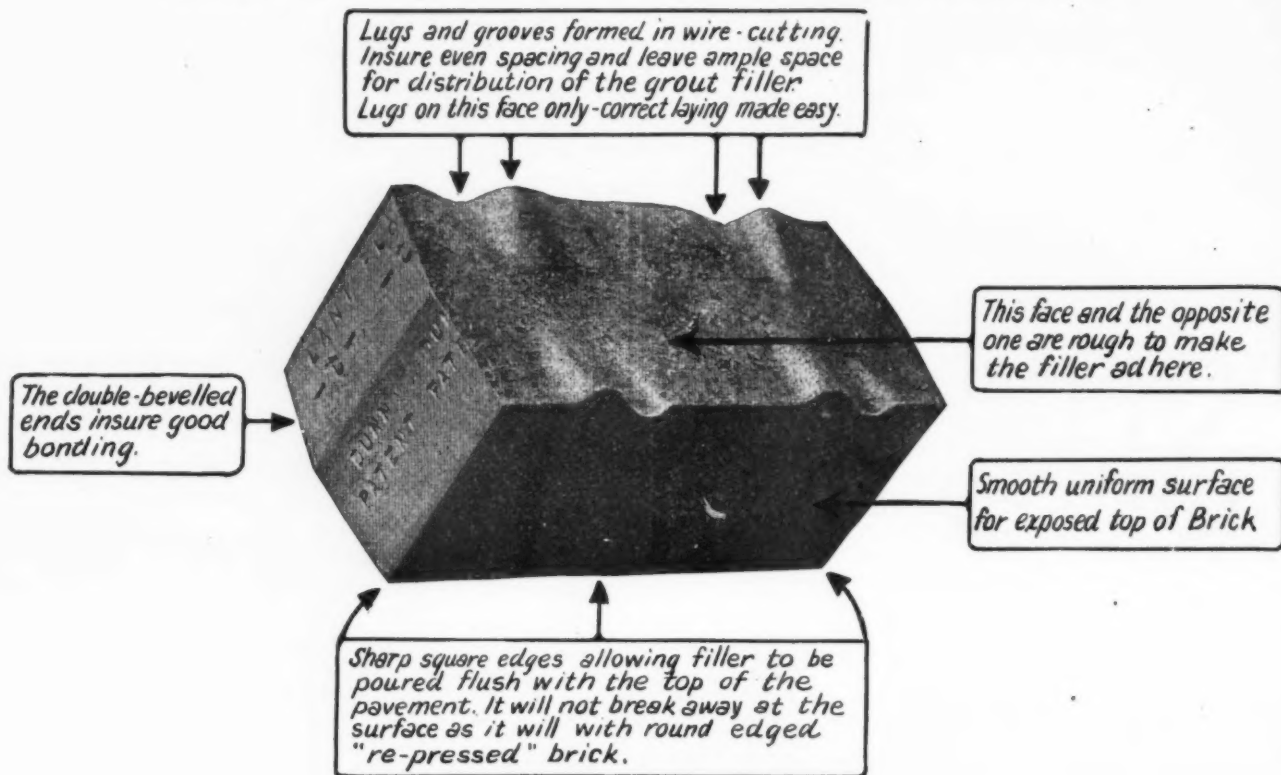
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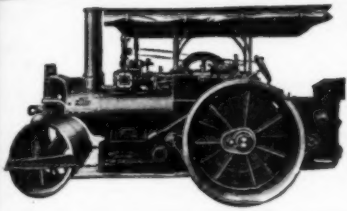
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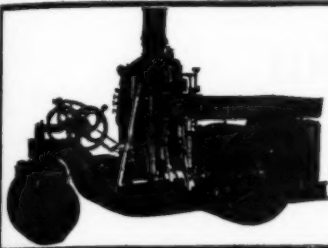


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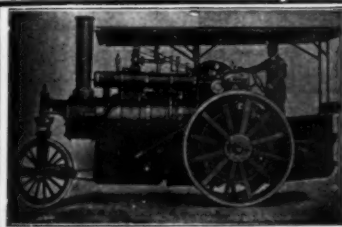
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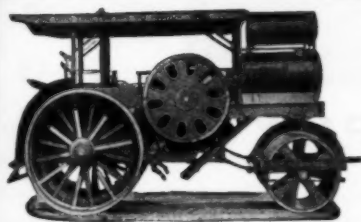


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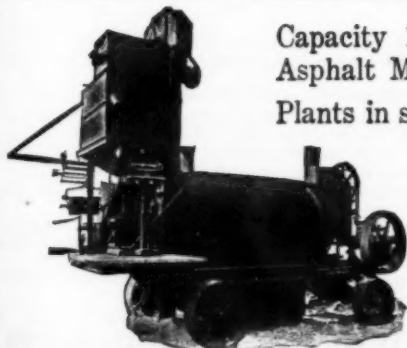


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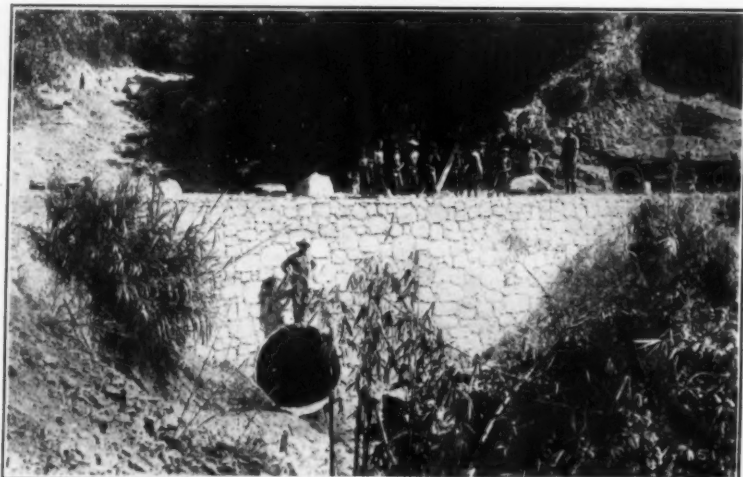
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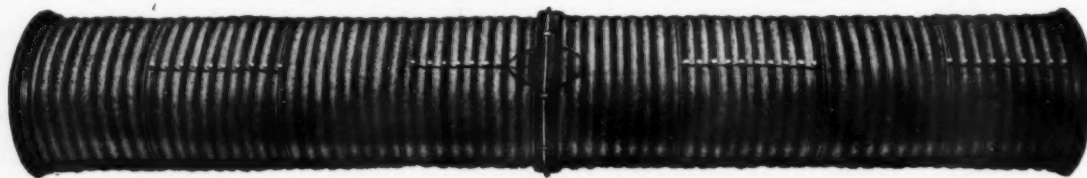


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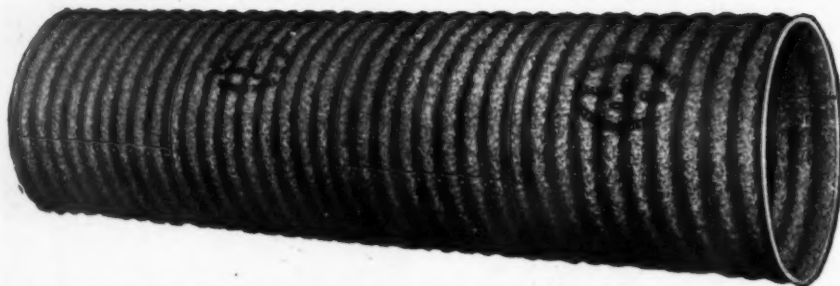


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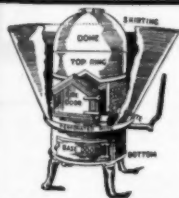
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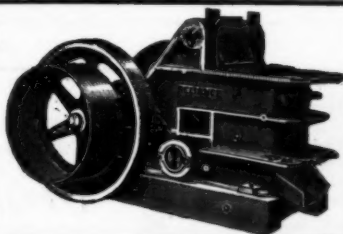
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These culverts are frequently used for Intakes, Outlets, Irrigation Ditches, Conduits, Casings for Electric Wires, Cables, Gas Mains, Water Pipes, Collapsible Forms, etc. You can build on, break-joint, section by section, without limit; and readily open up at any point by simply taking out a few bolts and removing a section or two. Catalog G-9 tells the story. A copy?

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THE CAROLINA METAL PRODUCTS COMPANY, Manufacturers in Wilmington, N. C.

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THE CANTON CULVERT & SILO CO.
MANUFACTURERS
CANTON, OHIO, U.S.A.



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Genuine
"Armco" American
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for drainage purposes.

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K. T. WATER GATES and
the LENNON PATENT SMOOTH METAL FLUME

Lone Star Culvert Company
HOUSTON, TEXAS

AMERICAN INGOT IRON "ARMCO" CULVERTS

99.84% PURE IRON

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Triangle Brand on Every Sheet

This Triangle Trade-Mark is
YOUR PROTECTION

TENNESSEE METAL CULVERT CO.
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Genuine
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or scientific management in the making
and use of shovels was first advocated by
this company in 1906. Drop us a card and
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THE CONNEAUT SHOVEL CO., Shovel Specialists, CONNEAUT, OHIO



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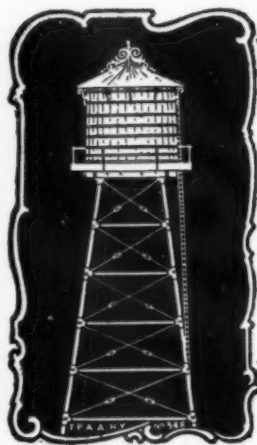
We Specialize in the
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**ELEVATED STEEL TANKS
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for Municipal, Railroad and Factory Service. We also
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"The Tanks with a Reputation"

**CALDWELL TANKS
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are the exponents of the highest type of construction from every standpoint. Durability and strength are manifest in their every line. No weight of tank carried has ever caused them to collapse. No gale has ever done them harm.

If you erect this outfit at your plant, you are assured of freedom from accident and repairs for all time. If you will but investigate the many plants in your vicinity having this outfit, you will take chances with no other. Ask for illustrated catalogue and book of photo views.

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Tanks { Steel—Wood } Towers
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LOWELLVILLE, OHIO
Capacity 50,000 gals.
Height 117 ft.

Elevated Steel Tanks

Hemispherical and Segmental Bottoms

Manufactured at Pittsburgh, Pa.
Erected Anywhere

We have special designs for Municipal, Rail-
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Are you interested in machinery of any kind? If so, write the undersigned:

We are Southern Manufacturers and Make our own
Engines and Boilers and guarantee them; when you deal
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Our Engines and Boilers are now in use in many of the Gineries, Oil Mills, Saw
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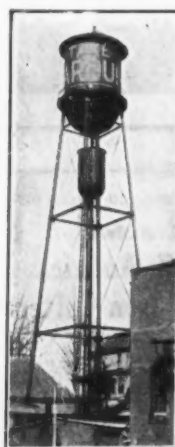
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We make Cane Mills and Syrup Kettles, Pulleys, Castings, etc. Write us for
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Also carry large stock Mill Supplies, Pipe, Roofing, Belting, Fittings, etc.

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**TANKS ON TOWERS
STANDPIPES
STEEL RIVETED PIPE**

Tanks Anywhere for
Any Service

If Made of Steel We Make It

Structural Steel Work

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TOWERS**

Mechanically Correct in Design and Workmanship
Any Size. Erected Anywhere

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R. D. COLE MFG. CO. NEWNAN, GA.

ROLLER BEARING CARS AND TRUCKS

OF ALL KINDS. FOR ALL PURPOSES
SWITCHES, TURNABLES

Complete Industrial Railway Equipment

Write for Catalogue and Prices.

THE CHASE FOUNDRY & MFG. CO.
COLUMBUS, OHIO



Style 251-A



Insane Hospital,
Nevada, Missouri

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Structural Steel Work

MEMPHIS STEEL
CONSTRUCTION COMPANY
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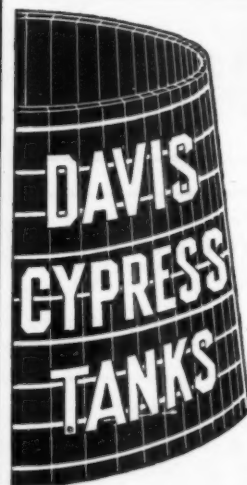
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The standard of high-grade construction, accuracy, reliability, strength, durability and price
Capacity 1-16 oz. to 200 tons. Write for catalog No. 16.

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**Heat and
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We build tanks for every
purpose.

Tell us your needs, and
let us give you designs and
prices, both of which will
appeal to you.

G. M. Davis & Son
PALATKA, FLA.

OPPORTUNITIES IN THE SOUTH

— FOR —

Manufacturers, Investors, Merchants, Farmers and Homeseekers

In the following pages leading railroads and a number of towns and cities invite your attention to the opportunities possessed by the rapidly developing South for every line of industry, for investments, and as a place for home-making in the city and on the farm.

The marvel of the day, commanding the world's attention to a greater extent probably than the development of any other section has ever received, is the amazing material unbuilding of the South. Everywhere men in every walk of life are beginning to study the South. They are coming to realize something of its matchless resources, to know something of the opportunities which it presents for manufacturing and for mining operations, for city building activities, for the utilization on a large scale of the cut-over timber lands and the reclaimable wet lands of the South.

With a view to presenting to the world from week to week the resources and the growth and the opportunities which are offered for all of these things, some of the leading railroads of the South and Southwest, some of the great public service corporations intimately identified with the upbuilding of this section and some of its progressive towns and cities from week to week tell the story of what they have to offer to the manufacturer, to the investor, to the merchant, to the pleasure-seeker, to the health-seeker. Study the pages that follow, and if you are at all interested in knowing about the South and its opportunities, its resources and its progress, if you want to keep in touch with that section which is attracting greater attention than any other part of America, get in communication with the organizations whose advertisements are to be found in the following pages.

THE WEST POINT ROUTE

Atlanta & West Point Railroad THE WESTERN RAILWAY OF ALABAMA

Offers excellent locations for

Truck, Fruit, Stock and General Farming

Available Factory Sites. Abundance of Raw Material and Good Transportation Facilities
Write for information.

E. S. CENTER, General Agent, ATLANTA, GA.

To the

MANUFACTURER and DISTRIBUTOR

Abundant supplies of coal, coke, iron, timber and other raw materials lie in the regions of Georgia and Alabama which are traversed by the

Central of Georgia Railway

Cheap electric power, numerous undeveloped water-powers, good home markets and excellent shipping facilities. Therefore, manufacturing conditions are ideal.

Many of the cities on the Central of Georgia Railway occupy advantageous positions for distributing warehouses, and a number of the larger northern and eastern manufacturers supply their southeastern trade from branch houses in these cities.

Full and detailed information upon application.

**J. M. MALLORY, Industrial Agent
SAVANNAH, GEORGIA**

Hosiery Mill Location

Will be glad to confer with interested parties regarding excellent location for hosiery mill. Splendid building now ready for machinery.

Healthful location, ample supply of labor, citizens of community interested in seeing development made.

Seaboard Air Line Railway

J. A. PRIDE, General Industrial Agent

NORFOLK, VA.

Attractive Factory Sites

ON THE

Illinois Central Railroad

For full particulars address the undersigned

Free books of information on farm lands issued by the
Illinois Central Railroad

ABOUT THE SOUTH

MISSISSIPPI—A WONDERFUL AGRICULTURAL STATE

LOUISIANA—NATURE'S GARDEN SPOT

MR. FARMER, THE YAZOO-MISSISSIPPI DELTA

IS CALLING YOU

THE PHILOSOPHY OF A NORTH MISSISSIPPI

FARM

SOUTH MISSISSIPPI, THE SETTLER'S CHANCE

Everyone who would like a Southern home or Investment should have a copy of one or all of these books. For free copies address

J. C. CLAIR

Industrial and Immigration Commissioner

ILLINOIS CENTRAL RAILROAD COMPANY

135 East 11th Place, CHICAGO, ILL.

**Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina,
South Carolina, Tennessee, Virginia, Southern Illinois, Southern Indiana**

What We Offer You

THERE are millions of acres of the most productive farm, pasture and orchard lands in the South offering distinct advantages to homeseekers. Good farmers can make more money in the South from the labor and capital invested than elsewhere in America. Careful investigation will prove this and also that the most pleasant, healthful home conditions are in this section. One can find no better region for dairying, or for poultry and live stock raising. Abundant grasses and forage plants, pure water, the long grazing seasons, the low cost of production and the good markets make the South unequalled today in opportunities for these industries. Nearly all authorities who have studied the situation agree that this is so. For fruit and truck raising, for general or special farming, there are all conditions for success. Lands in good locations are to be had at lowest prices for equally productive lands anywhere.

The South not only offers the opportunity for farm homeseekers, but needs them. The Southern Railway Lines want settlers in their territory who can turn the available lands into highly productive places to furnish the foodstuffs necessary for the South itself and to take advantage of the outside markets which may be supplied. They are anxious to build up their territory as part of their efforts to make their own properties more productive.

For this reason their Industrial and Agricultural Department is maintained. Its co-operation is offered in every way possible to the homeseeker who will investigate the opportunities of the South; every assistance is extended which will enable him to find the location where are the home conditions he desires and which will give him prosperity. Immigration agents will advise with him. The information about lands, crops and the various sections and conditions along the roads, carefully collected by the companies, is at his command. Careful attention will be given to secure for him the special information desired on particular subjects or localities. Booklets and other printed matter will be sent on application.

After the homeseeker is located, trained and practical agricultural field agents, live stock, dairy and poultry agents familiar with local conditions will be at his service in solving any of the problems which his new location may bring. Market agents will help him to find the best market for his products.

What we do for the homeseeker, we also do for the manufacturer looking for a location for his plant. Industrial agents will help him solve the questions as to the proper point where raw materials may be satisfactorily assembled; where labor, power, transportation and market conditions are best; where necessary lands are properly located and to be had; where local capital, if wanted, will join in building the plant, and where all the other conditions which help to make the success of the industry and the welfare of its labor are to be found.

We offer our services in behalf of a territory reached by nearly 10,000 miles of railway, the people of that territory and a company which is earnestly at work in co-operation with every person or interest affected to build up the territory and advance the fortunes of those who are developing the lands and the many opportunities in the South.

Southern Railway
Southern Railway in Mississippi
Mobile & Ohio Railroad
Georgia Southern & Florida Ry.
Virginia & Southwestern Ry.
Augusta Southern Railroad

M. V. RICHARDS
Industrial and Agricultural Commissioner
WASHINGTON, D. C.

Danville & Western Railway
Tallulah Falls Railway
Blue Ridge Railway
Hawkinsville & Fla. South'n. Ry.
Macon & Birmingham Railway
Northern Alabama Railway

Commercial Dairying Along the Clinchfield

Opportunity waits to fill the hands of the men who go into the dairying business on a commercial basis on the line of the Carolina, Clinchfield & Ohio Railway.

Along most of its entire length conditions of soil, climate and transportation combine to render it ideal for furnishing to the market large quantities of butter at production-cost not easily met by competitors elsewhere.



A DAIRY HERD IN THE CLINCHFIELD TERRITORY.

The high lands traversed by the road are natural grass lands, producing abundantly of certain of the most nutritive kinds as soon as the timber is cleared away so that the sun can warm the soil. Other kinds must be planted, but yield equally well where given the opportunity.

Corn, wheat, oats, rye, barley—all these grains grow readily and yield largely throughout the entire territory.

The summers are long, owing to the latitude, but mild because of the altitude; the winters are short and not rigorous, and cows can graze in comfort during practically all the months of the year. This keeps them healthy, and lessens the cost as well. The construction of barns for them is rendered cheap by reason of the cheapness of lumber, as well as by the fact that they need not be made so warm as is necessary farther North.

There is an abundance of running water—clear, pure, sparkling—during the entire year. Every farm can have its own streams fed by never-failing mountain springs.

The Carolina, Clinchfield & Ohio Railway, through its connections with the Louisville & Nashville and the Chesapeake & Ohio, the Norfolk & Western, the Southern and the Seaboard Air Line Railways, puts this entire section in easy touch with the best markets of the country—North, South, East and West—and in these markets there is a continually increasing demand for first-class dairy products.

*Write for a copy of the booklet, "The Land of Opportunities,"
issued by the Industrial Department of the road.*

Carolina, Clinchfield & Ohio Rwy.

"THE ROAD OF OPPORTUNITY"

R. F. BREWER, Industrial Agent

Johnson City, Tenn.



A Trainload of South Florida Cattle for Kansas City Packers

Why Florida is Adapted to Raising Livestock

W. A. McRae, Florida Commissioner of Agriculture, outlines in the following striking synopsis Florida's resources and advantages for raising livestock. Mr. McRae's observations are based upon years of knowledge and experience, and a special study of Florida's adaptability for stock raising. Read what he says:

"There are many reasons why Florida is adapted to the successful growing of livestock of all kinds, almost without limit.

"Among the principal reasons is its unlimited and unfailing supply of water, which is absolutely essential in every country to the successful production of livestock of all kinds. Where water is not running from natural sources, there is hardly a locality in the State that cannot be made to artificially produce water enough for all reasonable purposes, whether it be stock raising or other purposes.

"Another, which is equally as important, is the short feeding and sheltering period necessary in this State as compared with other States of the Union, it being necessary, and that in parts of the State only, to feed no more than three months and to shelter, possibly all told, no more than six weeks in the entire year.

"Another and as great an advantage in this State is the adaptability of the soils of Florida to the production of all kinds of forage crops and at less cost of production than elsewhere.

"Of the entire area of Florida there are only about 3,000,000 acres in farms and under farming control. There are not less than 30,000,000 acres that can be used to a greater or less extent for forage production or grazing purposes for livestock.

"This will show that Florida has within her boundaries the greatest grazing region east of the Mississippi River, and practically an unlimited capacity to produce forage crops to supply the livestock that could be grown upon it.

"The number of livestock of all kinds in the State is about 2,000,000 in round numbers, and the value of these is \$25,000,000. Instead of this small number there should be not less than 10,000,000 head of livestock growing in Florida, in which case the value, instead of being \$25,000,000, should be \$250,000,000 to \$300,000,000. This may sound large, but it is entirely practical and reasonable and can be easily attained."

"Live Stock Farming in Florida" is the title of an interesting illustrated booklet containing a fund of authentic data and information on this subject. We will gladly send it to those desiring to investigate this opportunity.

FLORIDA EAST COAST RAILWAY

(FLAGLER SYSTEM)

J. E. INGRAHAM, Vice-President

ST. AUGUSTINE, FLA.

HOMESEEKERS' RATES FOR 1915

Seaboard Air Line Railway

The Progressive Railway of the South

Announces the establishment of attractive Round-Trip Homeseekers' Rates to Progressive Florida.

TO	FROM	
	WASHINGTON, D. C.	CINCINNATI, OHIO
	January 12th, February 9th and FIRST and THIRD TUESDAYS in each succeeding month.	January 5th and 19th and FIRST and THIRD TUESDAYS in each succeeding month.
	TICKETS GOOD FOR 21 DAYS	
NORTH FLORIDA		
Lake City	\$22.65	\$27.10
Quincy	24.55	25.60
Tallahassee	24.45	25.60
THE BEAUTIFUL LAKE COUNTRY		
Ocala	25.00	30.00
Orlando	25.00	30.00
Oviedo	25.00	30.00
Leesburg	25.00	30.00
Tavares	25.00	30.00
POLK COUNTY HIGHLANDS		
Bartow	25.00	30.00
PEERLESS PINELLAS		
St. Petersburg, Clearwater, Tarpon Springs, Elfers via Tampa	25.00	30.00
THE FAMOUS MANATEE COUNTY		
Palmetto, Parrish, Terra Ceia Manatee, Bradentown, Bee Ridge Oneco, Sarasota Venice	25.00	30.00
TAMPA, PLANT CITY	25.00	30.00

These tickets will be on sale at Washington, D. C., January 12th and February 9th, and two dates in each month thereafter. At Cincinnati on January 5th and 19th, and two dates in each succeeding month—the FIRST and THIRD TUESDAYS—good for 21 days. You can stop at Jacksonville, Florida's greatest city. It will repay you. Stopovers also south of Jacksonville going and returning.

The rates and service from The Nation's Capital, WASHINGTON, offers splendid opportunity to the people from the Eastern States to make a Florida trip cheaply and comfortably.

The CINCINNATI rates offer a similar opportunity to the people of the Central States.

You can find attractive openings in the progressive State of Florida. We shall be glad to answer your inquiry for complete information.

SEABOARD AIR LINE RAILWAY

The Progressive Railway of the South

J. A. PRIDE, General Industrial Agent

NORFOLK, VIRGINIA

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- Acetylene Service.**
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- Agricultural Implements.**
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York Mfg. Co., York, Pa.
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- Architects.**
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Erie Machine Shops, Erie, Pa.
- Asphalt Paving Plants.**
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- Automobiles. (Second Hand.)**
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First National Bank, Richmond, Va.
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New First National Bank, Columbus, Ohio.
National Exchange Bank, Baltimore, Md.
Provident Savings Bank & Trust Co., Cincinnati, O.
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Dow Wire & Iron Works, Louisville, Ky.
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Ohio Elevator & Machine Co., The, Columbus, O.
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Fardes Works, Co., Perth Amboy, N. J.
- Bars, Wire, Wire Fabric, etc. (For Reinforced Concrete.)**
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Bedford Steam Stone Works, Bedford, Ind.
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Graton & Knight Mfg. Co., Worcester, Mass.
- Belt Lacing and Supplies. [See Belting. Leather, Canvas, Rubber.]**
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Buffalo Forge Co., Buffalo, N. Y.
Cameron & Hartley Co., Charleston, S. C.
Green Fuel Economizer Co., Mattawan, N. Y.
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South Atlantic Blow Pipe & Sheet Metal Co., Savannah, Ga.
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- Blueprinters.**
Childrey Co., Richmond, Va.
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Casey-Hedges Co., Chattanooga, Tenn.
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Lefel & Co., James, Springfield, O.
Lombard Iron Works, Augusta, Ga.
Mechanick Iron Works, Charlotte, N. C.
Murray Iron Works Co., Burlington, Ia.
Phoenix Iron Works Co., Meadville, Pa.
Schodfeld Iron Works, Macon, Ga.
Sturtevant Co., B. F., Hyde Park, Boston, Mass.
Viller Mfg. Co., Milwaukee, Wis.
Westinghouse Machine Co., Pittsburgh, Pa.

Envelopes.
Young & Golden Co., Baltimore, Md.

Excavating Machinery.

American Clay Machinery Co., The, Bucyrus, Ohio.
American Steel Dredge Co., Fort Wayne, Ind.
Bay City Dredge Works, Bay City, Mich.
Byers Mach. Co., The John F., Ravenna, O.
Economy Excavator Co., Iowa Falls, Iowa.
Fairbanks Steam Shovel Co., Marion, O.
Hayward Co., New York, N. Y.
Jeffrey Mfg. Co., Columbus, O.
Kevstone Drill & Equipment Co., Beaver Falls, Pa.
Lidgerwood Mfg. Co., New York, N. Y.
Marion Steam Shovel Co., Marion, O.
Monaghan Machine Co., Chicago, Ill.
Morris Machine Works, Baldwinville, N. Y.
National Hoisting Engine Co., Harrison, N. J.
The Automatic Shovel Co., Lorain, Ohio.
Williams Co., The G. H., Cleveland, O.

Excavators. (Trench.)

Bay City Dredge Works, Bay City, Mich.
Economy Excavator Co., Iowa Falls, Iowa.
Fairbanks Steam Shovel Co., Marion, O.
Hayward Co., The, New York, N. Y.
Monaghan Machine Co., Chicago, Ill.

Excelsior Machinery.

Kline, Lewis T., Alpena, Mich.

Exhaust Heads.

American Spiral Pipe Works, Chicago, Ill.

Exhibits. (Machinery Builders' Equipment and Supplies.)
Builders' Exchange, Baltimore, Md.

Expansion Joints.

Badger & Sons Co., E. B., Boston, Mass.

Expansion Joints. (Street and Road.)

Philip Carey Co., The, Cincinnati, Ohio.

Expanded Metal. [See Lath.]

Explosives.

Du Pont De Nemours Powder Co., E. I., Wilmington, Del.
Keystone Nat'l. Powder Co., Emporium, Pa.

Export Agents. (South America.)

Lutz, Friedr. W., Richmond, Va.

Factory Sites. (Town and Railroad.) [See Industrial, Agricultural and Commercial Opportunities.]

Fans. (Electric.)

General Electric Co., Schenectady, N. Y.

Fans. (Ventilating.) [See Blowers, Exhaust Fans.]

Fastener Driving Machine. (Corrugated Joint.)
Saranac Machine Co., Benton Harbor, Mich.

Feed-Water Heaters and Purifiers.

American Water Softener Co., Philadelphia, Pa.
Blake & Knowles Steam Pump Works, East Cambridge, Mass.
Murray Iron Works Co., Burlington, Ia.
National Pipe Bending Co., New Haven, Conn.
Scales & Sons Co., Wm. B., Pittsburgh, Pa.
Stewart Heater Co., Buffalo, N. Y.

Feed-Water Heater and Purifier and Oil Separator Combined.
Blake & Knowles Steam Pump Works, East Cambridge, Mass.

Platt Iron Works Co., Dayton, Ohio.
Stewart Heater Co., Buffalo, N. Y.

Felt. (Building, Sheathing.)

Barrett Mfg. Co., Philadelphia, Pa.

Fencing. (Woven Wire Field.)

American Steel & Wire Co., Chicago, Ill.
Cyclone Fence Co., Waukegan, Ill.
Gulf States Steel Co., Birmingham, Ala.

Fencing, Entrance Gates. (Iron, Steel, Wire.)
American Steel & Wire Co., Chicago, Ill.
Bolles Iron & Wire Wks., J. E., Detroit, Mich.
Cyclone Fence Co., Waukegan, Ill.
Dow Wire & Iron Works, Louisville, Ky.
Dufur & Co., Baltimore, Md.
Eureka Supply Co., Chattanooga, Tenn.
New Jersey Wire Cloth Co., Trenton, N. J.
Ohio Elevator & Mach. Co., The, Columbus, O.

Fertilizer Machy. [See also Phosphate Machy.]
Stedman's Foundry & Machine Works, Aurora, Ind.
Vaik & Murdoch Iron Works, Charleston, S. C.

Fires.
Barnett Co., G. & H., Philadelphia, Pa.
Nicholson File Co., Providence, R. I.

Filters. (Water, for Domestic and Industrial Purposes.)
American Water Softener Co., Philadelphia, Pa.
International Filter Co., Chicago, Ill.
New York Const. Jewell Fil. Co., New York, N. Y.

Fire Clay. [See Brick, Fire.]

Fire Door Fixtures.
Richmond Safety Gate Co., Richmond, Ind.
Victor Mfg. Co., Newburyport, Mass.

Fire Extinguishers.
Badger & Sons Co., E. B., Boston, Mass.

Fire Escapes.
Bolles Iron & Wire Works, J. E., Detroit, Mich.
Cheasapeake Iron Works, Baltimore, Md.
Eureka Supply Co., Chattanooga, Tenn.

Fire Hose.
Eureka Fire Hose Mfg. Co., New York, N. Y.

Fire Places. (Brick and Tile.)
Hood Brick Co., B. Mifflin, Atlanta, Ga.

Fireproof Building Construction. [See Concrete Construction.]

Fireproof Building Material.
Bannon Pipe Co., P., Louisville, Ky.
Johns-Manville Co., E. W., New York, N. Y.

Fireproof Doors and Shutters.
Kinnear Mfg. Co., Columbus, O.
Richmond Safety Gate Co., Richmond, Ind.
Victor Mfg. Co., Newburyport, Mass.
Wagner's Sons Co., J. E., Louisville, Ky.

Fireproof Windows. [See Window Frames and Sashes (Fireproof).]
Fittings. (Wire Rope.)
Waterbury Co., New York, N. Y.

Fireproofing. (Brick and Tile.)
Hood Brick Co., B. Mifflin, Atlanta, Ga.

Fixtures. (Electric Lighting.)
Hill & Co., Walter E., Baltimore, Md.

Flanges. (Iron and Steel.)
American Gas Iron Pipe Co., Birmingham, Ala.
American Pipe & Construction Co., Phila., Pa.
American Spiral Pipe Works, Chicago, Ill.
Dart Mfg. Co., E. M., Providence, R. I.
Glamorgan Pipe & Foundry Co., Lynchburg, Va.
National Tube Co., Pittsburgh, Pa.
U. S. East Iron Pipe & Fdry. Co., Burlington, N. J.
Wood & Co., R. D., Philadelphia, Pa.

Flare Lamps.
Prest-O-Lite Co., Inc., The, Indianapolis, Ind.

Flexible Joints.
Moran Flex. Steam Joint Co., Inc., Louisville, Ky.

Flooring. (Crescoted Block.)

Republic Crescoting Co., Indianapolis, Ind.

Flooring. (Hardwood, Maple, Oak.)
Whiting, William S., Elizabethton, N. C.

Flour and Grist Mill Machinery and Supplies.
Caldwell & Sons Co., H. W., Chicago, Ill.
Salem Foundry & Machine Works, Salem, Va.
Starr Co., B. F., Baltimore, Md.
Wolf Co., Chambersburg, Pa.

Flue Lining.
Owensboro Sewer Pipe Co., Owensboro, Ky.
Southern Sewer Pipe Co., Birmingham, Ala.

Forges.

Buffalo Forge Co., Buffalo, N. Y.

Forgings.
Weimer Chain & Iron Co., Lebanon, Pa.

Foundations. (Waterproof.)
Requarth Co., O. W., Charlotte, N. C.

Foundry Equipment and Supplies.
Hill-Brunner Fdry. Supply Co., Cincinnati, O.
Newport Sand Bank Co., Inc., Newport, Ky.

Foundry Facings. (Talc and Soapstones.)
Georgia Talc Co., Asheville, N. C.
Hill-Brunner Fdry. Supply Co., Cincinnati, O.

Foundry and Machine Shops.
Glamorgan Pipe & Foundry Co., Lynchburg, Va.
Goldens Foundry & Machine Wks., Columbus, Ga.
Grainger & Co., Louisville, Ky.
Lombard Iron Works, Augusta, Ga.
Titus, E. E., Petersburg, Va.

Frogs. [See Railroad Frogs and Switches.]

Fuel Economizer.
Green Fuel Economizer Co., Mattawan, N. Y.
Sturtevant Co., R. F., Hyde Park, Boston, Mass.

Fuel Oil.
Gulf Refining Co., Pittsburgh, Pa.
U. S. Asphalt Refining Co., New York, N. Y.

Furnaces. (For Industrial Purposes.)
Smythe Co., The S. R., Pittsburgh, Pa.

Fuses. (Electrical.)
Economy Fuse & Mfg. Co., Chicago, Ill.

Fuse Shells. (Renewable.)
Economy Fuse & Mfg. Co., Chicago, Ill.

Fuses, Bases and Fittings.
Johns-Manville Co., H. W., New York, N. Y.

Galvanized Steel and Iron.
American Sheet & Tin Plate Co., Pittsburgh, Pa.
La Belle Iron Works, Steubenville, O.
McCalla, Inc., Harold, Philadelphia, Pa.
Whitaker-Glessner Co., Portsmouth Plant, Portsmouth, Ohio.

Garage and House. (Portable.)
Dixie Culvert & Metal Co., Atlanta, Ga.
Steel Products Co., The, Savannah, Ga.

Garbage Disposal Plants.
Stacy-Bates Co., Minneapolis, Minn.

Gas Blowers. (Turbine.)
Terry Steam Turbine Co., Hartford, Conn.

Gas Engines. [See Engines, Gas.]

Gas Machines.
Kemp Mfg. Co., O. N., Baltimore, Md.
Milburn Co., Alex. N., Baltimore, Md.

Gas Plants.
Gas Engineering Co., Trenton, N. J.
Power & Mining Machinery Co., Oudash, Wis.
Western Gas Construction Co., Ft. Wayne, Ind.

Gas Producers.
Smythe Co., The S. R., Pittsburgh, Pa.
Westinghouse Machine Co., Pittsburgh, Pa.
Wood & Co., R. D., Philadelphia, Pa.

Gasoline and Kerosene.
Gulf Refining Co., Pittsburgh, Pa.

Gas and Steam Fitters' Tools.
Saunders' Sons, D., Yonkers, N. Y.

Gears.
Caldwell & Sons Co., H. W., Chicago, Ill.
Cresson-Morris Co., Philadelphia, Pa.
James Mfg. Co., D. O., Chicago, Ill.
Jeffrey Mfg. Co., Columbus, O.

Generating Sets.
Engberg Electric & Mechanical Works, St. Joseph, Mo.
Sturtevant Co., R. F., Hyde Park, Boston, Mass.
Triumph Electric Co., Cincinnati, O.

Geologists.
Davis, Geo. O., Phila., Pa.
Froehling & Robertson, Richmond, Va.
Grimsley, G. P., Martinsburg, W. Va.

Glass. (Plate, etc.)
Bioswanger & Co., Memphis, Tenn.

Governors. (Steam Engines.)
Pickering Governor Co., Portland, Conn.

Grain Elevator Supplies.
Caldwell & Sons Co., H. W., Chicago, Ill.
Jeffrey Mfg. Co., Columbus, O.
Link-Belt Co., Nicetown (Philadelphia), Pa.

Granite.
Southern Marble & Granite Co., Spartanburg, S. C.

Graphite.
Dixon Crucible Co., Joseph, Jersey City, N. J.

Grates and Grate Bars.
Huber Grate Bar & Stoking Co., Baltimore, Md.
Thomas Grate Bar Co., Birmingham, Ala.

Gravel.
Arundel Sand & Gravel Co., Baltimore, Md.

Gravel. (Roofing and Road.)
American Ballast Co., Knoxville, Tenn.

Gravity Spiral Chutes.
Mathews Gravity Carrier Co., Ellwood City, Pa.

Grease.
Albany Lubricating Co., New York, N. Y.

Grease Cups.
Albany Lubricating Co., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, O.

Greases and Lubricating Compounds.
Albany Lubricating Co., New York, N. Y.
Galena Signal Oil Co., Franklin, Pa.
Robinson & Son Co., Wm. C., Baltimore, Md.

Grinders. (Gypsum, Limestone, etc.)
Stedman's Foundry & Machine Wks., Aurora, Ind.

Grinding Wheels.

Carborundum Co., Niagara Falls, N. Y.

Vitrified Wheel Co., Westfield, Mass.

Groovers.

Huther Bros. Saw Mfg. Co., Inc., Rochester, N. Y.

Gunpowder.

Du Pont De Nemours Powder Co., E. I., Wilmington, Del.
Keystone National Powder Co., Emporium, Pa.

Handle Machinery. [See Woodworking Machinery.]

Hangers. [See Pulleys, Shafting and Hangers.]

Hay Tools.

Myers & Bro., F. E., Ashland, Ohio.

Heater. (Asphalt.)
Cummer & Son Co., F. D., The, Cleveland, Ohio.

Heating Apparatus, Engineers and Contractors.
Allen-Scales Engineering Co., Nashville, Tenn.
American Blower Co., Detroit, Mich.
Buffalo Steam Pump Co., Buffalo, N. Y.
Kelly, Thos. C., Cincinnati, Ohio.
Sturtevant Co., R. F., Hyde Park, Boston, Mass.
Walker Electric & Plumbing Co., Rome, Ga.

Hoisting Machinery.
Byers Machine Co., The John F., Ravenna, Ohio.
Dake Engine Co., Grand Haven, Mich.
Erie Clutch & Pulley Co., Erie, Pa.
Flory Mfg. Co., S., Bangor, Pa.
Link-Belt Co., Nicetown, (Philadelphia), Pa.
Lidgerwood Mfg. Co., New York, N. Y.
Monaghan Machine Co., Chicago, Ill.
Stroudsburg Engine Works, Stroudsburg, Pa.

Holists.

CHAIN.
Speldel, J. G., Reading, Pa.

ELECTRIC.
Lidgerwood Mfg. Co., New York, N. Y.
Monaghan Mch. Co., Chicago, Ill.
National Hoisting Engine Co., Harrison, N. J.
Otis Elevator Co., New York, N. Y.
Patten Mfg. Co., Chattanooga, Tenn.

GASOLINE.
Erie Clutch & Pulley Co., Erie, Pa.
Patten Mfg. Co., Chattanooga, Tenn.

Holists. (Steam.)
Byers Machine Co., John F., Ravenna, Ohio.
Flory Mfg. Co., S., Bangor, Pa.
Lidgerwood Mfg. Co., New York, N. Y.
Stroudsburg Engine Works, Stroudsburg, Pa.

Hollow Building Tile.
Kilian Fireproofing & Brick Works, Kilian, & Co.
Oconee Brick & Tile Co., Milledgeville, Ga.

Hoops, Bands, etc. (Galvanized.)
McCalla, Inc., Harold, Philadelphia, Pa.

Hose. [See Fire Hose.]

Hotels.
Cawthon, The, Mobile, Ala.
DeSoto Hotel, Tampa, Fla.
Grunwald, The, New Orleans, La.
Hotel Essex, Boston, Mass.
Murphy Hotel, Richmond, Va.
San Carlos, The, Pensacola, Fla.
St. Charles Hotel, New Orleans, La.

Hulls. (Steel, for Barks and Barges.)
American Bridge Co., of New York, N. Y.

Hydrants.
Houborn Copper & Brass Wks. Co., Cincinnati, O.
Glamorgan Pipe & Foundry Co., Lynchburg, Va.
Myers & Bro., F. E., Ashland, O.
Wood & Co., R. D., Philadelphia, Pa.

Hydraulic Giants.
American Spiral Pipe Works, Chicago, Ill.

Hydrogen.
International Oxygen Co., New York, N. Y.

Hydrogen Generators.
International Oxygen Co., New York, N. Y.

Hydraulic Rams.
Columbia Pump & Well Co., Washington, D. C.

Ice and Refrigerating Boxes.
Brecht Co., The, St. Louis, Mo.

Icemaking Machinery & Supplies.
Brecht Co., The, St. Louis, Mo.
De La Vergne Machine Co., New York, N. Y.
Frick Co., The, Waynesboro, Pa.
Huetman & Granger Co., The, Detroit, Mich.
Johns-Manville Co., H. W., New York, N. Y.
Portsmouth Engine Co., Portsmouth, Ohio.
Remington Machine Co., Wilmington, Del.
Viller Mfg. Co., Milwaukee, Wis.
Vogt Machine Co., Henry, Louisville, Ky.
York Mfg. Co., York, Pa.

Inclinators.
Stacy-Bates Co., Minneapolis, Minn.

Incorporators. (Companies.)
Delaware Trust Co., Wilmington, Del.

Industrial, Agriculture and Commercial Opportunities.

OTHER AND TOWNS.
Newport News, Va., Old Dominion Land Co.
Norfolk, Va., Virginia Railway & Power Co.
Portsmouth, Va., Virginia Railway & Power Co.
Richmond, Va., Virginia Railway & Power Co.
Suffolk, Va., Virginia Railway & Power Co.

PUBLIC SERVICE CORPORATIONS.
Virginia Railway & Power Co., Richmond, Va.

RAILROADS.
Atlanta & W. Point R. R. Co., Atlanta, Ga.
Baltimore & Ohio Railroad, Baltimore, Md.
Carolina Clinchfield & O. Ry., Jackson City, Tenn.
Central of Georgia Ry. Co., Savannah, Ga.
Florida East Coast Ry., St. Augustine, Fla.
Illinois Central Railroad Co., Chicago, Ill.
Norfolk & Western Railway, Roanoke, Va.
Seaboard Air Line, Norfolk, Va.
Southern Railway System, Washington, D. C.

Industrial Truck Work. [See Railways, Ind.]

- Insulated Wires and Cables.**
 Insulated Wire & Cable Co., New York, N. Y.
- Insulating Materials.**
 General Electric Co., Schenectady, N. Y.
 Johns-Manville Co., H. W., New York, N. Y.
- Insurance.**
 Hartford Steam Boiler Inspector & Insurance Co., Hartford, Conn.
- Investment Securities.**
 New First National Bank, Columbus, O.
 Fidelity, Garard & Co., Chicago, Ill.
 Provident Savings Bank & Trust Co., Cincinnati, Ohio.
- Irons.**
 Allegheny Steel Co., Pittsburgh, Pa.
 La Belle Iron Works, Steubenville, O.
 Republic Iron & Steel Co., Youngstown, O.
 Tennessee Coal, Iron & R. R. Co., Birmingham, Ala.
 Union Iron Works, Haver Falls, Pa.
 Wood Iron & Steel Co., Allentown, Pa.
- Irrigation Machinery.**
 Cameron Steam Pump Wks., A. S. New York, N. Y.
- Kettles. (Steam Jacket.)**
 Edgar & Sons Co., E. R., Boston, Mass.
- Lace Leather.**
 Graton & Knight Mfg. Co., Worcester, Mass.
- Lamps. (Arc and Incandescent.)**
 Boston-Economy Lamp Division, Danvers, Mass.
 General Electric Co., Schenectady, N. Y.
 Lee Electric Co., Baltimore, Md.
 Piedmont Electric Co., Asheville, N. C.
- Lamps. (Carbon and Tungsten.)**
 Seaman Electric Lamp Co., Cincinnati, O.
- Lamp Posts. (Electric, Gas.)**
 Western Gas Construction Co., Ft. Wayne, Ind.
- Lands. (Mineral, Timber, Farm, etc.) [See Industrial, Agricultural and Commercial Opportunities.]**
- Landscape Architects (See Engineers.) [Landscape]**
- Lathe Attachment. (Combination)**
 Garrett Attachment Co., Nashville, Tenn.
- Lathe. (Engine.)**
 Greaves, Kinsman Tool Co., The, Cincinnati, O.
- Lawn Furniture. (Wire.)**
 Bolles Iron & Wire Works, J. E., Detroit, Mich.
 Cincinnati Iron Fence Co., Cincinnati, Ohio.
 Deifer & Co., Baltimore, Md.
 Deifer, Baggett & Co., Baltimore, Md.
- Lights. (Portable Acetylene.)**
 Milburn Co., Alex. N., Baltimore, Md.
- Liquor Filters.**
 International Filter Co., Chicago, Ill.
- Lithographers, Engravers.**
 Young & Selden Co., Baltimore, Md.
- Lockers (Steel)**
 Beronstein Mfg. Co., Phila., Pa.
 Highley Metal Ceiling Mfg. Co., S., Pittsburgh, Pa.
 Serritt & Co., Camden, N. J.
 Van Hurling, J. M., Atlanta, Ga.
- Locomotives.**
 Baldwin Locomotive Wks., The, Philadelphia, Pa.
 Climax Mfg. Co., Corry, Pa.
 Ord, Geo. B., Cincinnati, O.
 Davenport Locomotive Works, Davenport, Ia.
 Erie Co., J. D., Plymouth, Ohio.
 Jeffrey Mfg. Co., Columbus, O.
 Lima Locomotive Corporation, Lima, O.
 Porter Co., H. K., Pittsburgh, Pa.
 Southern Iron & Equipment Co., Atlanta, Ga.
- RAILWAY.**
 Baldwin Locomotive Wks., The, Philadelphia, Pa.
 Lima Locomotive Corporation, Lima, O.
 Porter Co., H. K., Pittsburgh, Pa.
- Looms and Weaving Machinery.**
 Draper Co., Hopedale, Mass.
 Mason Machine Works, Taunton, Mass.
 Saco-Lowell Shops, Boston, Mass.
- Loom Harness.**
 American Supply Co., Providence, R. I.
- Lubricants.**
 Albany Lubricating Co., New York, N. Y.
 Ohio Elevator Co., New York, N. Y.
- Lubricants. (Graphite.)**
 Dixon Crucible Co., Joseph, Jersey City, N. J.
- Lumber.**
 Industrial Lumber Co., Elizabeth, La.
- Lumber. (Crescote.)**
 American Crescote Works, New Orleans, La.
- Lumber. (Heavy Construction, Pitch Pine, etc.)**
 Industrial Lumber Co., Elizabeth, La.
 National Lumber & Crescote Co., Texarkana, Ark.
- Lumber Buggies.**
 Saco Steam Feed Works - Meridian, Miss.
- Lumber Stackers.**
 Saco Steam Feed Works, Meridian, Miss.
- Machinery. (Special.)**
 Rice Co., E. W., Brooklyn, N. Y.
 Kline, Lewis T., Alpena, Mich.
 Universal Machine Co., Baltimore, Md.
- Machinery and Supplies. (New and Second-Hand Bargains.)**
 Assets Purchasing Co., Wheeling, W. Va.
 Bailey & James Roller & Mch. Co., Joplin, Mo.
 Birwell, W. L., Phila., Pa.
 Boston Iron & Metal Co., Balto., Md.
 Cleveland Belting & Machinery Co., Cleveland, O.
 Brown & Son, New York, N. Y.
 Harris Bros. Co., Chicago, Ill.
 Hyde Bros. Steel & Rail Co., Pittsburgh, Pa.
 Jeffrey-Griner Machinery Co., Philadelphia, Pa.
 Lehman, Charles T., Birmingham, Ala.
 Lodge & Shipley Mach. Tool Co., Cincinnati, O.
 Marine Metal & Supply Co., New York, N. Y.
 Moore & Co., Edgar M., Pittsburgh, Pa.
- New River Co., Macdonald, W. Va.**
 Nussbaum & Co., V. M., Fort Wayne, Ind.
 Pannonsmiller Engineering Co., Chicago, Ill.
 Power Equipment Co., New York, N. Y.
 Prentiss Tool & Supply Co., New York, N. Y.
 Randle Machinery Co., Cincinnati, O.
 Read Co., Howard W., Philadelphia, Pa.
 Sackheim & Co., George, Philadelphia, Pa.
 Samuel, Frank, Philadelphia, Pa.
 Seyfert's Sons, Inc., L. E., Philadelphia, Pa.
 Southern Mchry. Exchange, Jacksonville, Fla.
 South Side Fdry. & Mch. Co., Charleston, W. Va.
 Stearns, John C., Kansas City, Mo.
 Tampa Machinery Exchange, Tampa, Fla.
 Toomey, Frank, Inc., Philadelphia, Pa.
 Wilson Machy. Co., Harold, R., St. Louis, Mo.
 Winterer Co., Herman L., Philadelphia, Pa.
- Machine Tools.**
 Garrett Attachment Co., Nashville, Tenn.
 Greaves, Kinsman Tool Co., The, Cincinnati, O.
- Machinists. (Engineers.)**
 Universal Machine Co., Baltimore, Md.
- Magnesium Materials.**
 Johns-Manville Co., H. W., New York, N. Y.
- Magnetic Separators.**
 Buchanan & Co., Inc. C. G., New York, N. Y.
- Mail Chutes.**
 Outier Mail Chute Co., Rochester, N. Y.
- Mechanical Draft.**
 Buffalo Forge Co., Buffalo, N. Y.
 Sturtevant Co., B. F., Hyde Park, Boston, Mass.
- Metal Ceilings. [See Ceilings, Metal.]**
- Metaline.**
 Metaline Co., Long Island City, N. Y.
- Metal. (For Tanks, Culverts, Roofing, etc.)**
 Whitaker-Giesner Co., Portsmouth Plant, Portsmouth, Ohio.
- Metal Culverts. [See Culverts.] (Corrugated Metal.)**
- Metal Shingles. [See Shingles.] (Metal.)**
- Metal Window Frames and Sash. [See Window Frames and Sash.] (Fireproof.)**
- Metal Work. [See Sheet Metal Work.]**
- Metal-Working Machinery. (Sheet.)**
 Bliss Co., E. W., Brooklyn, N. Y.
- Meters. (Water.)**
 Alberger Pump & Condenser Co., New York, N. Y.
- Meter Boxes, Couplings, Gauges. (Water.)**
 Clark Co., H. W., Mattoon, Ill.
- Micrometers, Calipers, etc.**
 Starrett Co., L. S., Athol, Mass.
- Milk Filters. (Liquor, Milk, etc.)**
 International Filter Co., Chicago, Ill.
- Mill Engineers and Architects.**
 O'Brian, W. O., Memphis, Tenn.
 Sirrine, J. E., Greenville, S. C.
- Mill Supplies.**
 Bailey-Lebby Co., Charleston, S. C.
 Cameron & Barkley Co., Charleston, S. C.
 Gainesville Iron Works, Gainesville, Ga.
 Lombard Iron Works, Augusta, Ga.
 Lunkenheimer Co., The, Cincinnati, O.
 Mecklenburg Iron Works, Charlotte, N. C.
 Salem Foundry & Machine Wks., Salem, Va.
 Starr Co., B. F., Baltimore, Md.
 Wolf Co., Chambersburg, Pa.
- Mining Machinery. (Gold, Copper, Plats, etc.)**
 Bartlett & Snow Co., C. O., Cleveland, O.
 Jeffrey Mfg. Co., Columbus, O.
 McLannahan-Stone Mach. Co., Hollidaysburg, Pa.
 Mecklenburg Iron Works, Charlotte, N. C.
 Raymond Bros. Impact Pulv. Co., Chicago, Ill.
- Mixers. (Concrete.)**
 Milwaukee Concrete Mixer Co., Milwaukee, Wis.
 Van Duzee, Royce Co., The, Columbus, O.
- Mixing Machinery.**
 Dunning, W. D., Syracuse, N. Y.
- Mortar Colors.**
 Chattanooga Paint Co., Chattanooga, Tenn.
- Motor Trucks. (Gasoline.)**
 White Co., The, Cleveland, O.
- Motor Trucks. (Second Hand.)**
 Mar-Del Mobile Co., Baltimore, Md.
- Municipal Castings.**
 Clarksville Fdry. & Mach. Works, Clarksville, Tenn.
- Music Wire.**
 American Steel & Wire Co., Chicago, Ill.
 Waterbury Co., The, New York, N. Y.
- Nails. (Out.)**
 La Belle Iron Works, Steubenville, O.
- Nails and Spikes.**
 La Belle Iron Works, Steubenville, Ohio.
 Republic Iron & Steel Co., Youngstown, O.
 Youngstown Sheet & Tube Co., Youngstown, O.
- Nuts. [See Bolts, Nuts, Rivets, etc.]**
- Office Furniture (Steel)**
 Merritt & Co., Camden, N. J.
- Oil. (Crescote.)**
 Barrett Mfg. Co., Philadelphia, Pa.
- Oils. (Lubricating, Etc.)**
 Albany Lubricating Co., New York, N. Y.
 Galena Signal Oil Co., Franklin, Pa.
 Gulf Refining Co., Pittsburgh, Pa.
 Robinson & Son Co., Wm. O., Baltimore, Md.
- Oil Cans.**
 Wall Mfg. Supply Co., F., Allegheny, Pa.
- Oil Engines. [See Engines (Oil).]**
- Oil Separators.**
 Stewart Heater Co., Buffalo, N. Y.
- Oil Well Machinery.**
 Keystone Steam Well Mach. Co., Beaver Falls, Pa.
 Williams Bros., Ithaca, N. Y.
- Ors Handling Machinery. [See Coal Handling Machinery.]**
- Ornamental Iron Works.**
 Bolles Iron & Wire Wks., J. E., Detroit, Mich.
 Chesapeake Iron Works, Baltimore, Md.
 Dow Wire & Iron Works, Louisville, Ky.
 Ohio Elevator & Mach. Co., The, Columbus, O.
 Schriber & Sons Co., The, Cincinnati, O.
 Sneed Architectural Iron Works, Louisville, Ky.
- Oxygen.**
 International Oxygen Co., New York, N. Y.
- Oxygen Generators.**
 International Oxygen Co., New York, N. Y.
- Oxy-Acetylene Welding and Cutting Outfit and Supplies.**
 International Oxygen Co., New York, N. Y.
 Milburn Co., Alex. N., Baltimore, Md.
- Packing. (Asbestos, Metallic, Rubber, Leather, etc.)**
 Graton & Knight Mfg. Co., Worcester, Mass.
 Jenkins Bros., New York, N. Y.
 Johns-Manville Co., H. W., New York, N. Y.
 Power Specialty Co., New York, N. Y.
 United Lead Co., New York, N. Y.
- Packing. (Lead Wool.)**
 United Lead Co., New York, N. Y.
- Paint. (Metal Surfaces.)**
 Dixon Crucible Co., Joseph, Jersey City, N. J.
- Paint. (Preservative.)**
 Reeves Co., The, New Orleans, La.
- Paint. (Roofing, Building, etc.)**
 Cameron & Barkley Co., Charleston, S. C.
 Chattanooga Paint Co., Chattanooga, Tenn.
- Paper. (Roofing, Building, Sheeting, etc.)**
 Barrett Mfg. Co., Philadelphia, Pa.
 Cameron & Barkley Co., Charleston, S. C.
- Partitions. (Wooden Rolling.)**
 Van Hurling, J. M., Atlanta, Ga.
- Patents and Inventions.**
 Russell Machine Co., F. K., Dallas, Tex.
- Patent Attorneys.**
 Brown, Eugene C., Washington, D. C.
 Chaudies & Chaudies, Washington, D. C.
 Coleman, Watson E., Washington, D. C.
 Duffie & Co., John S., Washington, D. C.
 Evans & Co., Victor J., Washington, D. C.
 Fitzgerald & Co., W. T., Washington, D. C.
 Hodges, Vernon E., Washington, D. C.
 Jenner, Herbert, Washington, D. C.
 Lacey, R. S. & A. R., Washington, D. C.
 McLandie, A. S., Chattanooga, Tenn.
 Parker, C. L., Washington, D. C.
 Woodworth, John R., Washington, D. C.
- Paving Blocks. (Granite.)**
 Southern Marble & Granite Co., The, Spartanburg, S. C.
- Paving Blocks. (Crescote.)**
 International Crescoting & Construction Co., Galveston, Tex.
 National Lumber & Crescoting Co., Texarkana, Ark.
 Republic Crescoting Co., Indianapolis, Ind.
 Southern Crescoting Co., Ltd., S. C.
 Southern Paving Const. Co., Chattanooga, Tenn.
 Southern Wood Preserving Co., Atlanta, Ga.
 U. S. Wood Preserving Co., New York, N. Y.
 Wyckoff Pipe & Crescoting Co., Inc., The, New York, N. Y.
- Paving Blocks. (Granite.)**
 Southern Marble & Granite Co., The, Spartanburg, S. C.
- Paving Brick.**
 Carlyle Paving Brick Co., Portsmouth, O.
 Copeland-Ingles Shale Brick Co., Birm'gh'm, Ala.
 Dunn Wire-Cut-Lug Brick Co., Cincinnati, Ohio.
 Southern Clay Mfg. Co., Chattanooga, Tenn.
 Standard Brick Co., Macon, Ga.
- Perforated Metal.**
 Caldwell & Son, H. W., Chicago, Ill.
 Erdie Perforating Co., Rochester, N. Y.
 Hendricks Mfg. Co., The, Carbondale, Pa.
 Manhattan Perforated Metal Co., New York, N. Y.
 Mundt & Sons, Charles, Jersey City, N. J.
- Petroleum Refiners.**
 Gulf Refining Co., Pittsburgh, Pa.
 Standard Oil Co., Inc., Newark, N. J.
- Phosphate Machinery.**
 American Process Co., New York, N. Y.
 Bailey-Lebby Co., Charleston, S. C.
 Cameron & Barkley Co., Charleston, S. C.
 Link Belt Co., Nicetown (Philadelphia), Pa.
 McLannahan-Stone Mach. Co., Hollidaysburg, Pa.
 Raymond Impact Pulv. Co., Chicago, Ill.
 Valk & Murdoch Iron Works, Charleston, S. C.
- Pig Iron.**
 La Belle Iron Works, Steubenville, O.
 Republic Iron & Steel Co., Youngstown, O.
 Tennessee Coal, Iron & R. R. Co., Birm'gh'm, Ala.
- Pile Drivers.**
 Vulcan Iron Works, Chicago, Ill.
- Pile Driving and Wharf Building.**
 Murray & Co., Inc., W. D., Norfolk, Va.
- Piling. (Crescote.)**
 American Crescote Works, New Orleans, La.
 Intern'l Crescoting & Const. Co., Galveston, Tex.
 Southern Crescoting Co., Ltd., S. C.
 Southern Paving Const. Co., Chattanooga, Tenn.
- Pillow Blocks.**
 Golden's Foundry & Machine Co., Columbus, Ga.
 Medart Patent Pulley Co., St. Louis, Mo.
- Pipe.**
 Allegheny Steel Co., Pittsburgh, Pa.
 La Belle Iron Works, Steubenville, Ohio.
 National Tube Co., Pittsburgh, Pa.
 Youngstown Sheet & Tube Co., Youngstown, O.
- Pipe. (Cast Iron.)**
 American Cast Iron Pipe Co., Birmingham, Ala.
 American Pipe & Construction Co., Phila., Pa.
 Clow & Sons, James B., Chicago, Ill.
 Donaldson Iron Co., Kansas, Pa.
 Galloway Pipe & Foundry Co., Lynchburg, Va.
 Lynchburg Foundry Co., Lynchburg, Va.
 Massillon Iron & Steel Co., Massillon, O.
 U. S. Cast Iron Pipe & Fdry. Co., Burlington, N. J.
 Warren Fdry. & Mach. Co., New York, N. Y.
 Wood & Co., R. D., Philadelphia, Pa.
- Pipe. (Coil.)**
 Frick Co., The, Waynesboro, Pa.
 National Pipe Bending Co., New Haven, Conn.
 York Mfg. Co., York, Pa.
- Pipe. (Corrugated Culvert.) [See Culvert (Corrugated Metal).]**
- Pipe (Lead)**
 United Lead Co., New York, N. Y.
- Pipe. (Riveted.)**
 Keeler Co., E. Williamsport, Pa.
- Pipe. (Second Hand.)**
 Eagle Pipe Supply Co., New York, N. Y.
 Marine Metal & Supply Co., New York, N. Y.
- Pipe. (Spiral Riveted.)**
 American Spiral Pipe Works, Chicago, Ill.
- Pipe. (Spiral Steel.)**
 Standard Spiral Pipe Works, Chicago, Ill.
- Pipe. (Sewer, Vitrified.) [See Sewer Pipe, Vitrified.]**
- Pipe. (Wood.)**
 Wyckoff & Son Co., A., Elmira, N. Y.
- Pipe. (Wrought Iron.)**
 Youngstown Sheet & Tube Co., Youngstown, O.
- Pipe Bends.**
 Pittsburgh Valve, Fdry. & Const. Co., Pittsburgh, Pa.
- Pipe Covering. (Steam.)**
 Chesapeake Roofing & Pipe Covering Co., Baltimore, Md.
 Southern Asbestos Mfg. Co., Inc., Richmond, Va.
 Wyckoff & Son Co., A., Elmira, N. Y.
- Pipe Cutting and Threading Machinery.**
 Saunders' Sons, D., Yonkers, N. Y.
- Pipe Fittings.**
 American Cast Iron Pipe Co., Birmingham, Ala.
 Lunkenheimer Co., The, Cincinnati, O.
 Pittsburgh Valve, Fdry. & Const. Co., Pittsburgh, Pa.
 Warren Fdry. & Mach. Co., New York, N. Y.
 York Mfg. Co., York, Pa.
- Pipe Jointing. (Gas and Water Main.)**
 United Lead Co., New York, N. Y.
- Pipe Unions and Joints.**
 Dart Mfg. Co., E. M., Providence, R. I.
 National Tube Co., Pittsburgh, Pa.
- Pipe Wrenches and Cutters.**
 Saunders' Sons, D., Yonkers, N. Y.
- Piping System. (Designed and Installed.)**
 Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.
- Pitch.**
 Harrett Mfg. Co., Philadelphia, Pa.
- Plaster Machinery.**
 Bartlett & Snow Co., C. O., Cleveland, O.
- Plates.**
 Allegheny Steel Co., Pittsburgh, Pa.
 Cincinnati Iron & Steel Co., Cincinnati, O.
 Wood Iron & Steel Co., Allentown, Pa.
- Pneumatic Tools. [See Tools-Pneumatic.]**
- Poles. (Crescote.)**
 American Crescote Works, New Orleans, La.
 Intern'l Crescoting & Const. Co., Galveston, Tex.
 National Lumber & Crescote Co., Texarkana, Ark.
 Southern Crescoting Co., Ltd., S. C.
 Southern Paving Const. Co., Chattanooga, Tenn.
 Southern Wood Preserving Co., Atlanta, Ga.
- Polishing Machinery. (Wheels and Blocks.)**
 Carborundum Co., Niagara Falls, N. Y.
 Vitrified Wheel Co., Westfield, Mass.
- Power Plants. (Steam and Electric.)**
 Allen-Scales Engineering Co., Nashville, Tenn.
 Assets Purchasing Co., Wheeling, W. Va.
 Gibbs Machinery Co., Inc., Columbia, S. C.
- Power Transmission Machinery.**
 Bailey-Lebby Co., Charleston, S. C.
 Caldwell & Son Co., H. W., Chicago, Ill.
 Oreson-Morris Co., Philadelphia, Pa.
 Golden's Foundry & Machine Co., Columbus, Ga.
 Jeffrey Mfg. Co., Columbus, O.
 Jones & Laughlin Steel Co., Pittsburgh, Pa.
 Lane Mfg. Co., Montpelier, Vt.
 Link-Belt Co., Nicetown (Philadelphia), Pa.
 Medart Patent Pulley Co., St. Louis, Mo.
 Schofield Iron Works, Macon, Ga.
 Smith-Courtney Co., Richmond, Va.
 Wolf Co., The, Chambersburg, Pa.
 Wood's Sons, T. B., Chambersburg, Pa.
- Presses. (Baling, Cottonseed Oil, etc. Hydraulic and Power.)**
 Boomer & Boschert Press Co., Syracuse, N. Y.
 Caldwell Machinery Co., Richmond, Va.
 Continental Sine Co., Birmingham, Ala.
 French Oil Mill Mchry. Co., The, Piqua, Ohio.
 Grote Mfg. Co., E., Evansville, Ind.
 Murray Co., The, Atlanta, Ga.
 Saco-Lowell Shops, Boston, Mass.
- Presses. (Stamping.)**
 Rites Co., F. W., Brooklyn, N. Y.
 Max Am Machine Co., Mt. Vernon, N. Y.
- Printers. (Book, Catalog, Job, etc.)**
 Fleet-McGinley Co., Baltimore, Md.
- Promoters.**
 Electric Bond & Share Co., New York
- Pulleys. (Friction Clutch.)**
 Caldwell & Son Co., H. W., Chicago, Ill.
 Oreson-Morris Co., Philadelphia, Pa.
 Medart Patent Pulley Co., St. Louis, Mo.
 Moore & White Co., The, Philadelphia, Pa.
 Wood's Sons Co., T. B., Chambersburg, Pa.
- Pulleys. (Steel Rim.)**
 Medart Patent Pulley Co., St. Louis, Mo.
- Pulleys. (Wood Split.)**
 Caldwell & Son Co., H. W., Chicago, Ill.
 Lane Mfg. Co., Montpelier, Vt.
 Medart Patent Pulley Co., St. Louis, Mo.
 Reeves Pulley Co., Columbus, Ind.
 Saginaw Mfg. Co., Saginaw, Mich.
 Salem Foundry & Machine Wks., Salem, Va.
- Pulleys, Shifting and Hangers.**
 Caldwell & Son Co., H. W., Chicago, Ill.
 Oreson-Morris Co., Philadelphia, Pa.
 Erie Clutch & Pulley Co., Erie, Pa.
 Golden's Foundry & Mach. Co., Columbus, Ga.
 Jeffrey Mfg. Co., Columbus, O.
 Jones & Laughlin Steel Co., Pittsburgh, Pa.
 Lane Mfg. Co., Montpelier, Vt.
 Link-Belt Co., Nicetown (Philadelphia), Pa.
 Medart Patent Pulley Co., St. Louis, Mo.
 Wood's Sons Co., T. B., Chambersburg, Pa.

- Pulverizers.**
Austin Mfg. Co., Chicago, Ill.
Gründler Pat. Crusher & Pulv. Co., St. Louis, Missouri.
Jeffrey Mfg. Co., Columbus, O.
McLachlan-Stone Mach. Co., Hollidaysburg, Pa.
Raymond Bros., Impact Pulv. Co., Chicago, Ill.
Stedman's Foundry & Machine Wks., Aurora, Ind.
Western Wheel Scraper Co., Aurora, Ill.
- Pumping Machinery.**
Affiliated Manufacturers Co., Milwaukee, Wis.
Alberger Pump & Condenser Co., New York, N. Y.
Cameron Steam Pump Wks., A. S. New York, N. Y.
Cook, A. D., Lawrenceburg, Ind.
Deane Steam Pump Co., Holyoke, Mass.
Erie Pump & Equipment Co., Erie, Pa.
Holland Machine Co., New York, N. Y.
Keystone Pump & Well Engine Co., Beaver Falls, Pa.
Moffatt Machinery Mfg. Co., Charlotte, N. C.
Morris Machine Works, Baldwinville, N. Y.
Myers & Bros., F. E., Ashland, O.
Platt Iron Works Co., Dayton, Ohio.
Wood & Co., R. D., Philadelphia, Pa.
Worthington, Henry R., Harrison, N. J.
- Pumps. (Air.)**
Blakelee Mfg. Co., Du Quoin, Ill.
Pumps. (Air Lift.)
Sullivan Mchry. Co., Chicago, Ill.
- Pumps. (Boiler Feed.)**
Alberger Pump & Condenser Co., New York, N. Y.
Blakelee Mfg. Co., Du Quoin, Ill.
Cameron Steam Pump Wks., A. S. New York, N. Y.
Jeanesville Iron Works Co., Hazleton, Pa.
Moffatt Machinery Mfg. Co., Charlotte, N. C.
Murray Iron Works Co., Burlington, Ia.
Myers & Bros., F. E., Ashland, O.
- Pumps. (Centrifugal.)**
Alberger Pump & Condenser Co., New York, N. Y.
Buffalo Steam Pump Co., Buffalo, N. Y.
Cameron Steam Pump Wks., A. S. New York, N. Y.
Erie Pump & Equipment Co., Erie, Pa.
Holland Machine Co., New York, N. Y.
Jeanesville Iron Works Co., Hazleton, Pa.
Morris Machine Works, Baldwinville, N. Y.
Pacific Flush Tank Co., New York, N. Y.
Platt Iron Works Co., Dayton, Ohio.
Wood & Co., R. D., Philadelphia, Pa.
Worthington, Henry R., Harrison, N. J.
- Pumps. (Deep Well.)**
Cameron Steam Pump Wks., A. S. New York, N. Y.
Holland Machine Co., New York, N. Y.
Keystone Pump & Well Engine Co., Beaver Falls, Pa.
Layne & Bowler Co., Houston, Tex.
- Pumps. (Dredging.)**
Buffalo Steam Pump Co., Buffalo, N. Y.
Erie Pump & Equipment Co., Erie, Pa.
Holland Mch. Co., New York, N. Y.
Morris Machine Works, Baldwinville, N. Y.
Wood & Co., R. D., Phila., Pa.
- Pumps. (Hydraulic.)**
Buffalo Steam Pump Co., Buffalo, N. Y.
Cameron Steam Pump Wks., A. S. New York, N. Y.
Cardwell Machine Co., Richmond, Va.
Erie Pump & Equipment Co., Erie, Pa.
French Oil Mill Mchry. Co., The Fluga, O.
Holland Mch. Co., New York, N. Y.
- Pumps. (Oil and Gasoline.)**
Keystone Boiler & Fdry. Co., Columbus, Pa.
- Pumps. (Steam.)**
Alberger Pump & Condenser Co., New York, N. Y.
Blake & Knowles Steam Pump Works, East Cambridge, Mass.
Blakelee Mfg. Co., Du Quoin, Ill.
Buffalo Steam Pump Co., Buffalo, N. Y.
Cameron Steam Pump Wks., A. S. New York, N. Y.
Clayton Air Compressor Works, Cambridge, Mass.
Cook, A. D., Lawrenceburg, Ind.
Deane Steam Pump Co., Holyoke, Mass.
Fairbanks-Morse & Co., Atlanta, Ga.
Keystone Pump & Well Engine Co., Beaver Falls, Pa.
Murray Iron Works, Co., Burlington, Ia.
Scranton Pump Co., Scranton, Pa.
Snow Steam Pump Works, The, New York, N. Y.
Worthington, Henry R., Harrison, N. J.
- Pumps. (Trench.)**
Affiliated Manufacturers Co., Milwaukee, Wis.
- Pumps. (Carbine Driven.)**
Sturtevant Co., B. F., Hyde Park, Boston, Mass.
- Pumps. (Vacuum.)**
Cameron Steam Pump Wks., A. S. New York, N. Y.
- Pumps. (Water-works.)**
Holland Mch. Co., New York, N. Y.
Platt Iron Works Co., Dayton, Ohio.
- Pump Leathers.**
Graton & Knight Mfg. Co., Worcester, Mass.
- Punching and Shearing Machinery.**
Bliss Co., E. W., Brooklyn, N. Y.
- Purchasing Agents.**
U. S. Purchasing Corporation, New York, N. Y.
- Racks (For Pattern Storage.)**
Merritt & Co., Camden, N. J.
- Railroads. [See Industrial, Agricultural and Commercial Opportunities.]**
- Railroad Equipment and Supplies. (New and Second-hand.)**
American Frog & Switch Co., Hamilton, O.
Ballew-Lobby Co., The, Charleston, S. C.
Birmingham Rail & Loco. Co., Birmingham, Ala.
Cincinnati Frog & Switch Co., Cincinnati, O.
Cord, Geo. B., Cincinnati, O.
Fairbanks-Morse & Co., Atlanta, Ga.
Foster Co., L. B., Pittsburgh, Pa.
Georgia Car & Locomotive Co., Atlanta, Ga.
Hirsch Rolling Mill Co., St. Louis, Mo.
Hoffman & Co., Inc., E. C., Baltimore, Md.
Hyde, Chas., Pittsburgh, Pa.
Kilby Frog & Switch Co., Birmingham, Ala.
MacIsaac, J. H., Suffolk, Va.
National Steel Rail Co., St. Louis, Mo.
Newhall Eng. Co., Geo. M., Philadelphia, Pa.
Read Co., Howard W., Philadelphia, Pa.
Robinson & Orr, Pittsburgh, Pa.
Sherwood, E. O., New York, N. Y.
Southern Iron & Equipment Co., Atlanta, Ga.
Steel Rail Supply Co., The, New York, N. Y.
Thaw & Williams, Cincinnati, Ohio.
United States Rail Co., Cumberland, Md.
Weir Frog Co., Cincinnati, O.
Wilson & Co., E. H., Philadelphia, Pa.
Wilson Mach. Co., Harold R., St. Louis, Mo.
Zeisler Supply Co., Walter A., St. Louis, Mo.
- Railroad Frogs & Switches.**
American Frog & Switch Co., Hamilton, O.
Cincinnati Frog & Switch Co., Cincinnati, O.
Conley Frog & Switch Co., Memphis, Tenn.
Kilby Frog & Switch Co., Birmingham, Ala.
Newhall Engineering Co., Geo. M., Philadelphia, Pa.
Robinson & Orr, Pittsburgh, Pa.
Sweet's Steel Co., Williamsport, Pa.
Weir Frog Co., Cincinnati, O.
- Rails. (Steel.)**
Foster Co., L. B., Pittsburgh, Pa.
Frank, J. E., Atlanta, Ga.
Gulf States Steel Co., Birmingham, Ala.
Hirsch Rolling Mill Co., St. Louis, Mo.
Hoffman & Co., Inc., E. C., Baltimore, Md.
Hyde Bros. Steel & Rail Co., Pittsburgh, Pa.
Hyde, Chas., Pittsburgh, Pa.
Lackawanna Steel Co., Lackawanna, N. Y.
Levi & Co., Henry, Philadelphia, Pa.
MacIsaac, J. H., Suffolk, Va.
National Steel Rail Co., St. Louis, Mo.
Newhall Eng. Co., Geo. M., Philadelphia, Pa.
Republic Iron & Steel Co., Youngstown, O.
Robinson & Orr, Pittsburgh, Pa.
Sherwood, E. O., New York, N. Y.
Southern Iron & Equipment Co., Atlanta, Ga.
Steel Rail Supply Co., The, New York, N. Y.
Tennessee Coal, Iron & R. R. Co., B'm'gh'm, Ala.
United States Rail Co., Cumberland, Md.
Wilson & Co., E. H., Philadelphia, Pa.
- Rail Braces, Crossings, etc. [See R. R. Frogs and Switches.]**
- Railings and Grilles. (Brass.)**
Newman Mfg. Co., Cincinnati, O.
- Railways. (Industrial.)**
Chase Fdry. & Mfg. Co., Columbus, O.
Cincinnati Frog & Switch Co., Cincinnati, O.
Hunt Co., Inc., O. W., West New Brighton, N. Y.
Link-Belt Co., Nicetown (Philadelphia), Pa.
- Rams. (Hydraulic.) [See Hydraulic Ram.]**
- Reamers.**
Morris Twist Drill & Mch. Co., New Bedford, Mass.
- Reeds.**
American Supply Co., Providence, R. I.
- Refrigerating Machinery and Apparatus.**
Huetteman & Oramer Co., The, Detroit, Mich.
Portsmouth Engine Co., Portsmouth, O.
Remington Machine Co., Wilmington, Del.
Viller Mfg. Co., Milwaukee, Wis.
Vogt Machine Co., Henry, Louisville, Ky.
York Mfg. Co., York, Pa.
- Reinforcing Bars. [See Concrete Reinforcing Bars.]**
- River and Harbor Improvements. (Dredges, Dock, Warves, etc.)**
Globe Dredging Co., Savannah, Ga.
- Road Expansion Joints.**
Philip Carey Co., The, Cincinnati, Ohio.
- Road Machinery.**
Austin-Western Road Mchry. Co., The, Chicago, Ill.
Buffalo Steam Roller Co., Buffalo, N. Y.
Erie Machine Shop, Erie, Pa.
Gallon Iron Works & Mfg. Co., The, Gallon, Ohio.
Holt Manufacturing Co., The, Peoria, Ill.
Kelly Springfield Road Roller Co., Springfield, O.
The Automatic Shovel Co., Lorain, Ohio.
Universal Road Mchry. Co., Kingston, N. Y.
Western Wheel Scraper Co., Aurora, Ill.
Wheeling Mold & Fdry. Co., Wheeling, W. Va.
- Roadmaking Materials.**
Barrett Mfg. Co., Philadelphia, Pa.
Romeas Road Corp. of America, Phila. Pa.
Semet-Solvay Co., Solvay, N. Y.
Standard Oil Co., Inc., Newark, N. J.
U. S. Asphalt Refining Co., New York, N. Y.
- Road Binders.**
Barrett Mfg. Co., Phila., Pa.
Semet-Solvay Co., Solvay, N. Y.
Standard Oil Co., Newark, N. J.
U. S. Asphalt Refining Co., New York, N. Y.
- Road Roller. (Steam.)**
Austin-Western Road Mchry. Co., The, Chicago, Ill.
Buffalo Steam Roller Co., Buffalo, N. Y.
Erie Machine Shop, Erie, Pa.
Kelly Springfield Road Roller Co., Springfield, O.
Ohio Tractor-Roller Sales Co., Columbus, Ohio.
Universal Road Mchry. Co., Kingston, N. Y.
- Road Oil.**
Gulf Refining Co., Pittsburgh, Pa.
Standard Oil Co., Inc., Newark, N. J.
U. S. Asphalt Refining Co., New York, N. Y.
- Road Preservatives.**
Barrett Mfg. Co., Philadelphia, Pa.
Gulf Refining Co., Pittsburgh, Pa.
Semet-Solvay Co., Solvay, N. Y.
Standard Oil Co., Inc., Newark, N. J.
U. S. Asphalt Refining Co., New York, N. Y.
- Road Scarifiers.**
Buffalo Steam Roller Co., Buffalo, N. Y.
Gallon Iron Works & Mfg. Co., The, Gallon, Ohio
- Rock Crushers. [See Crushers, Rock.]**
- Roller Covering Supplies.**
American Supply Co., Providence, R. I.
- Roofing. (Ready Prepared: Felt, Tar, Asbestos, Asphalt.)**
American Sheet & Tin Plate Co., Pittsburgh, Pa.
Asbestos Protected Metal Co., Pittsburgh, Pa.
Barrett Mfg. Co., Philadelphia, Pa.
Cameron & Barkley Co., Charleston, S. C.
Chesapeake Roofing & Pipe Covering Co., Baltimore, Md.
Johns-Manville Co., H. W., New York, N. Y.
- Roofing. (Metal Shingles.) [See Shingles, Metal.]**
Cortright Metal Roofing Co., Philadelphia, Pa.
Edwards Mfg. Co., The, Cincinnati, O.
- Roofing. (Slate.)**
East Bangor Consol. Slate Co., East Bangor, Pa.
Genuine Bangor Slate Co., Easton, Pa.
Johnson, E. J., New York, N. Y.
Standard Slate Corp., Esmont, Va.
- Roofing and Siding. (Metal.)**
American Sheet & Tin Plate Co., Pittsburgh, Pa.
Asbestos Protected Metal Co., Pittsburgh, Pa.
Cameron & Barkley Co., Charleston, S. C.
Cortright Metal Roofing Co., Philadelphia, Pa.
Edwards Mfg. Co., The, Cincinnati, O.
Hyndman Roofing Co., Cincinnati, O.
Southern Sheet & Tin Plate Co., Ashland, Ky.
Steel Products Co., The, Savannah, Ga.
Tennessee Metal Culvert Co., Nashville, Tenn.
Whitaker-Glessner Co., Portsmouth Works, Portsmouth, Ohio.
Youngstown Sheet & Tube Co., Youngstown, O.
- Rope. (Manila, Sisal, Hemp, etc.)**
Broderick & Bascom Rope Co., St. Louis, Mo.
Columbian Rope Co., Auburn, N. Y.
Waterbury Co., New York, N. Y.
Wood's Sons Co., T. B., Chambersburg, Pa.
- Rope. (Wire.)**
Broderick & Bascom Rope Co., St. Louis, Mo.
Hunt Co., Inc., O. W., West New Brighton, N. Y.
Waterbury Co., New York, N. Y.
- Rope Drives.**
Caldwell & Son, H. W., Chicago, Ill.
Cresson-Morris Co., Philadelphia, Pa.
Jones & Laughlin Steel Co., Pittsburgh, Pa.
Medart Patent Pulley Co., St. Louis, Mo.
Waterbury Co., New York, N. Y.
Wood's Sons Co., T. B., Chambersburg, Pa.
- Rubber Goods.**
Eureka Fire Hose Mfg. Co., New York, N. Y.
- Rules. (Steel.)**
Larkin Rule Co., Saginaw, Mich.
Starrett Co., L. S., Athol, Mass.
- Safes and Vaults.**
York Safe & Lock Co., York, Pa.
- Sand.**
Arundel Sand & Gravel Co., Baltimore, Md.
Kirkpatrick Sand & Cement Co., Birmingham, Ala.
- Sand. (Foundry.)**
Newport Sand Bank Co., Inc., Newport, Ky.
- Sand Dryers.**
American Process Co., New York, N. Y.
Ripley Foundry & Mach. Co., The, Ripley, Ohio.
- Sap Stain Preventive.**
Church & Dwight Co., New York, N. Y.
- Sash Chain.**
Niagara Falls Metal Stamping Works, Niagara Falls, N. Y.
- Saws.**
Gerlach Co., Peter, Cleveland, O.
Huther Bros. Saw Mfg. Co., Inc., Rochester, N. Y.
Smith Machine Co., H. B., Smithville, N. J.
- Saws. (Band.)**
Smith Machine Co., H. B., Smithville, N. J.
- Saws. (Hack.)**
Starrett Co., L. S., Athol, Mass.
- Sawmill Dogs.**
Soule Steam Feed Works, Meridian, Miss.
- Sawmills.**
Gainesville Iron Works, Gainesville, Ga.
Gibbes Machinery Co., Inc., Columbia, S. C.
Knight Mfg. Co., Canton, O.
Lane Mfg. Co., Montpelier, Vt.
- Sawmill Machinery.**
Ballew-Lobby Co., Charleston, S. C.
Cameron & Barkley Co., Charleston, S. C.
Chase Turbine Mfg. Co., Orange, Mass.
Knight Mfg. Co., Canton, O.
Lane Mfg. Co., Montpelier, Vt.
McKenzie Iron Works, Charlotte, N. C.
Schofield Iron Works, Macon, Ga.
Southern Engine & Boiler Wks., Jackson, Tenn.
- Saw Sharpeners.**
Carborundum Co., Niagara Falls, N. Y.
Vitified Wheel Co., Westfield, Mass.
- Saw Sharpeners and Files. (Cotton Gin.)**
Carver Cotton Gin Co., East Bridgewater, Mass.
- Sawing Outfits. (Contractors and Industrial.)**
Rutland Foundry & Machine Co., Bennington, Vt.
- Scales.**
Standard Scale & Supply Co., Pittsburgh, Pa.
- Screens. (Fly, Window and Door.)**
New Jersey Wire Cloth Co., Trenton, N. J.
- Screens. (Mining, Stone, etc.)**
Erdie Perforating Co., Rochester, N. Y.
Hendrick Mfg. Co., Carbondale, Pa.
Jeffrey Mfg. Co., Columbus, O.
McLachlan-Stone Mach. Co., Hollidaysburg, Pa.
Mundt & Sons, Charles, Jersey City, N. J.
New Jersey Wire Cloth Co., Trenton, N. J.
- Screenings. (For Concrete and Road Construction.)**
American Ballast Co., Knoxville, Tenn.
- Screws. (Machine.)**
Progressive Mfg. Co., Torrington, Conn.
- Screws. (Safety Set.)**
Allen Manufacturing Co., Inc., Hartford, Conn.
- Screw Machine Products.**
Progressive Mfg. Co., Torrington, Conn.
- Separators. (Dust.)**
Buffalo Forge Co., Buffalo, N. Y.
Raymond Bros. Impact Pulv. Co., Chicago, Ill.
- Sewer Flushing Siphons.**
Pacific Flush Tank Co., New York, N. Y.
- Sewer Joint Compounds.**
Pacific Flush Tank Co., New York, N. Y.
- Sewer Pipes. (Vitrified.)**
Bannon Pipe Co., P., Louisville, Ky.
Blackmer & Post Pipe Co., St. Louis, Mo.
Cannelton Sewer Pipe Co., Cannelton, Ind.
Owensboro Sewer Pipe Co., Owensboro, Ky.
Pomona Terra-Cotta Co., Pomona, N. C.
Southern Sewer Pipe Co., Birmingham, Ala.
Stevens Sons Co., H., Macon, Ga.
- Sewer Pipe and Drains. (Monolithic Concrete)**
Requarth Co., O. W., Charlotte, N. C.
- Sewer Supplies.**
Clarksville Fdry. & Mach. Works, Clarksville, Tenn.
- Sewage Pumping and Disposal Apparatus.**
Pacific Flush Tank Co., New York, N. Y.
- Shafting. (Cold Rolled Steel.)**
American Steel & Wire Co., Chicago, Ill.
- Shafting. (Polished Steel.)**
Jones & Laughlin Steel Co., Pittsburgh, Pa.
Medart Patent Pulley Co., St. Louis, Mo.
Farde Works, O., Perth Amboy, N. J.
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Dixie Culvert & Metal Co., Atlanta, Ga.
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Salsbury Metal Culvert Co., Salsbury, N. C.
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Steel Products Co., The, Savannah, Ga.
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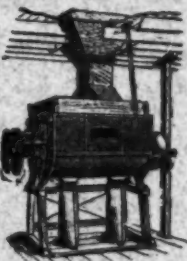
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